



February 8, 2021

District Supervisor
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

**Re: Release Characterization and Remediation Work Plan
ConocoPhillips
Leamex Battery #8 Trunk Line Release
Unit Letter M, Section 24, Township 17 South, Range 35 East
Lea County, New Mexico
1RP-780
Incident ID nPAC0607344786**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a historical release that occurred from a 6-inch trunk line associated with the Leamex Battery #8. The release footprint is located in Public Land Survey System (PLSS) Unit Letter M, Section 24, Township 17 South, Range 35 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.815683°, -103.622189°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), the release was discovered on February 18, 2006. The release occurred due to a failure of a 6-inch 1500 series Flextelic gasket between two flanges. The release consisted of 16.7 barrels (bbls) of produced water and affected a 30-foot (ft) by 300-ft area of dry caliche rock and black dirt pasture area. No cleanup actions were taken as there was no fluid to pick up. The initial C-141 report was submitted to the New Mexico Oil Conservation District (NMOCD), who subsequently assigned the release the Remediation Permit (RP) number 1RP-780 and the Incident ID nPAC0607344786. The 1RP-780 release is included in an Agreed Compliance Order-Releases (ACO-R) between COP and the NMOCD signed on May 7 and 9, 2019, respectively.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within 800 meters (approximately ½ mile) of the Site, but there are seven (7) water wells within 1,600 meters (approximately 1 mile) of the Site. The average depth to groundwater is 158 ft below ground surface (bgs). The site characterization data is included in Appendix B.

REGULATORY FRAMEWORK

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action

Tetra Tech

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levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil. Based on the site characterization and in accordance with Table I of 19.15.29.12 NMAC, the remediation RRALs for the Site are as follows:

Constituent	Remediation RRAL
Chloride	20,000 mg/kg
TPH	2,500 mg/kg
BTEX	50 mg/kg

Additionally, in accordance with the NMOCD guidance *Procedures for Implementation of the Spill Rule (19.15.29 NMAC)* (September 6, 2019), the following reclamation RRALs for surface soils (0-4 ft bgs) outside of active oil and gas operations are as follows:

Constituent	Reclamation RRAL
Chloride	600 mg/kg
TPH	100 mg/kg
BTEX	50 mg/kg

SITE ASSESSMENT

On behalf of COP, Tetra Tech conducted a visual Site inspection in June 2020 to evaluate current Site conditions. During this inspection, a lack of uniform vegetative cover was observed in the release footprint. Photographic documentation of the visual Site inspection is included as Appendix C.

In order to achieve horizontal and vertical delineation of the release extent, Tetra Tech personnel conducted soil sampling on November and December 2020 on behalf of COP. A total of four (4) borings (BH-1 through BH-4) were installed inside the release extent using an air rotary drilling rig to depths of 20 ft bgs. A total of five (5) hand auger borings (AH-1 through AH-5) were installed along the perimeter of the release extent to depths of 1 ft bgs. Soils at the Site consist of light brown to tan loose silty sands from the surface down to 20 ft bgs. Figure 3 depicts the release extent and the 2020 soil boring locations, and GPS coordinates for the boring locations are presented in Table 1.

Soils were field screened for chlorides using an ExTech EC400 ExStik and for volatile organics using a photoionization detector (PID) to determine sampling intervals. A total of thirty-three (33) samples were collected from the nine (9) borings (BH-1 through BH-4 and AH-1 through AH-5) and submitted to Pace Analytical National Center for Testing & Innovation (Pace) in Nashville, Tennessee to be analyzed for chlorides via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix D.

SUMMARY OF SAMPLING RESULTS

Results from the November 2020 soil sampling event are summarized in Table 2. The analytical results associated with the interior boring locations BH-1 and BH-4 exceeded the Site reclamation RRAL for chloride (600 mg/kg) in the 0-1 ft bgs and 2-3 ft bgs sample intervals, respectively. The analytical results associated with the remainder of the samples analyzed were below the Site remediation and reclamation RRALs for all constituents.

REMEDIATION WORK PLAN

Based on the analytical results, ConocoPhillips proposes to remove the remaining impacted material as shown in Figure 4. Impacted soils will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a maximum depth of 2 ft below the surrounding surface in the area around boring location BH-1 and 4 ft below the surrounding surface in the area around boring location BH-4 or until a representative sample from the walls and bottom of the excavation is below the RRALs.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. Confirmation bottom and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chlorides. Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade. The estimated volume of material to be remediated is approximately 2,485 cubic yards.

ALTERNATIVE CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)(b) NMAC, ConocoPhillips proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. The proposed confirmation sample locations are depicted in Figure 5. Fifty-two (52) confirmation floor samples and forty-nine (49) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses a surface area of approximately 13,200 square feet.

These confirmation sidewall and floor samples will be representative of no more than approximately 500 square feet of excavated area. Confirmation samples will be sent to an accredited laboratory for analysis of TPH (Method 8015 modified), BTEX (Method 8260B), and chloride (USEPA Method 300.0). Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade.

SITE RECLAMATION AND RESTORATION PLAN

The backfilled areas will be seeded in Spring 2021 (or the first favorable growing season) to aid in revegetation. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Loamy (L) Sites Seed Mixture will be used for seeding and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled.

Site inspections will be performed to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. The NMSLO seed mixture details and corresponding pounds pure live seed per acre are included in Appendix E.

CONCLUSION

ConocoPhillips proposes to begin remediation activities at the Site within 1 year of NMOCD plan approval. The Leamex Battery #8 Trunk Line Release (1RP-780) is included in an Agreed Compliance Order-Releases (ACO-R) between COP and the NMOCD signed on May 7 and 9, 2019, respectively. COP is dedicated to addressing and closing all historical releases included in the ACO-R, and given the number of releases to be addressed, 1 year is anticipated to be a practicable timeline. Upon completion of the proposed work, a final closure report detailing the remediation activities and the results of the confirmation sampling will be submitted to NMOCD.

If you have any questions concerning the soil assessment or the proposed remediation activities for the Site, please call me at (512) 739-7874 or Christian at (512) 338-2861.

Release Characterization and Remediation Work Plan
February 8, 2021

ConocoPhillips

Sincerely,
Tetra Tech, Inc.



Samantha K. Abbott, P.G.
Senior Staff Geologist



Christian M. Llull, P.G.
Project Manager

cc:

Mr. Marvin Soriwei, RMR – ConocoPhillips
Mr. Charles Beauvais, GPBU - ConocoPhillips

LIST OF ATTACHMENTS

Figures:

- Figure 1 – Site Map
- Figure 2 – Topographic Map
- Figure 3 – Release Extent and Assessment Map
- Figure 4 – Proposed Remediation Extent
- Figure 5 – Alternative Confirmation Sampling Plan

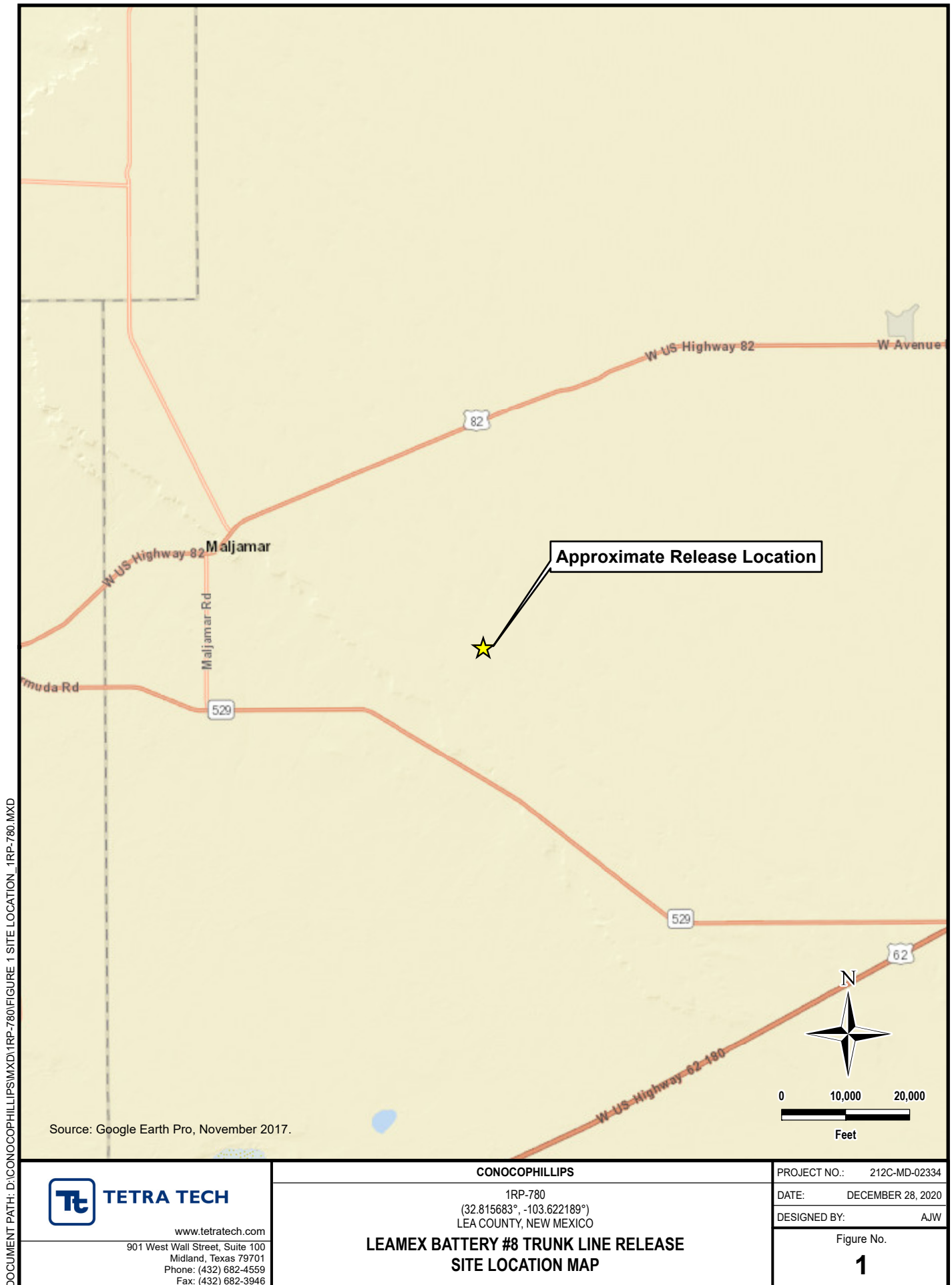
Tables:

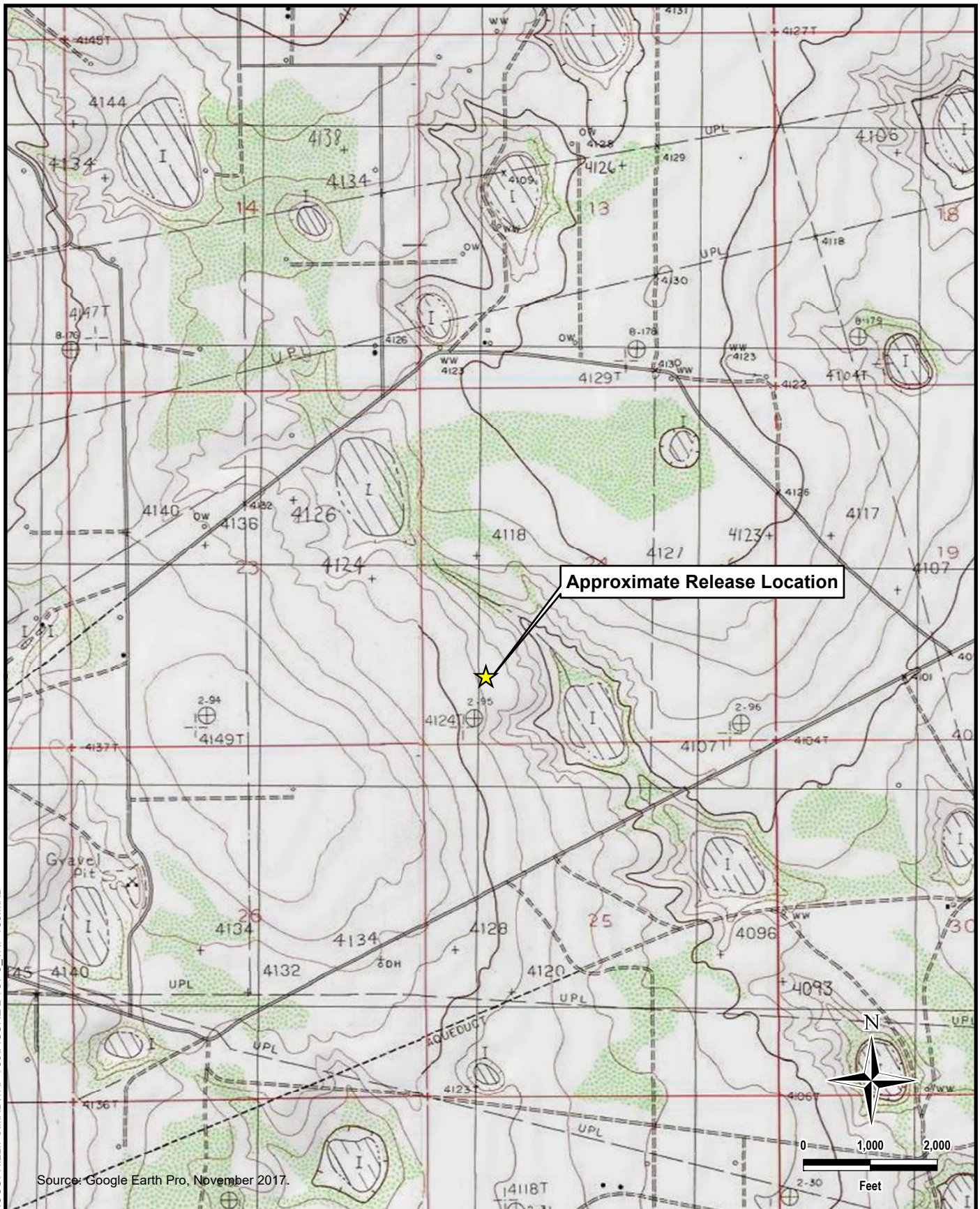
- Table 1 – Boring Location Coordinates
- Table 2 – Summary of Analytical Results – Soil Assessment

Appendices:

- Appendix A – C-141 Forms
- Appendix B – Site Characterization Data
- Appendix C – Photographic Documentation
- Appendix D – Laboratory Analytical Data
- Appendix E – NMSLO Seed Mixture Details

FIGURES





DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\1RP-780\FIGURE 2 TOPO_1RP-780.MXD


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CONOCOPHILLIPS

1RP-780

 (32.815683°, -103.622189°)
 LEA COUNTY, NEW MEXICO

**LEAMEX BATTERY #8 TRUNK LINE RELEASE
 TOPOGRAPHIC MAP**

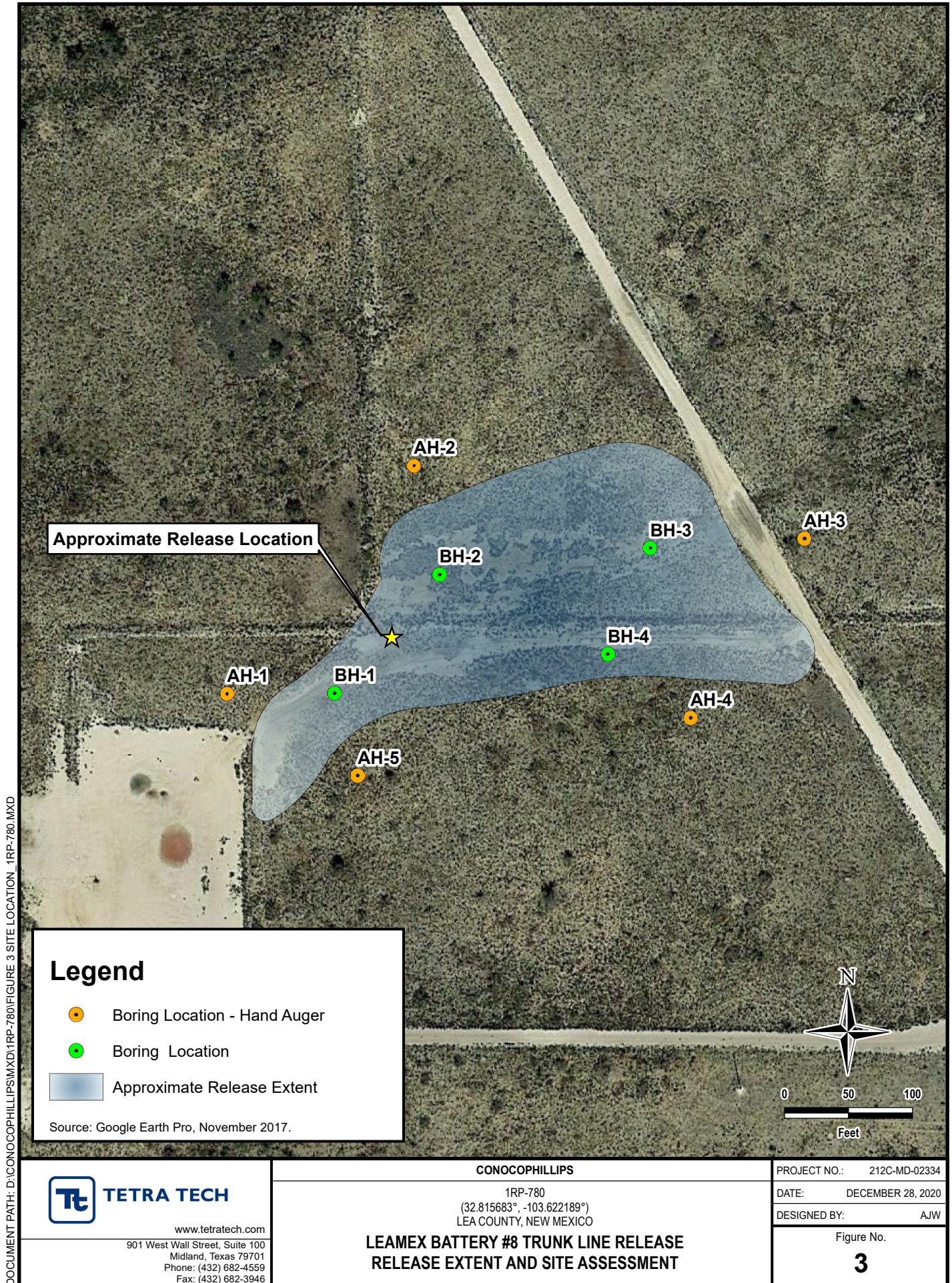
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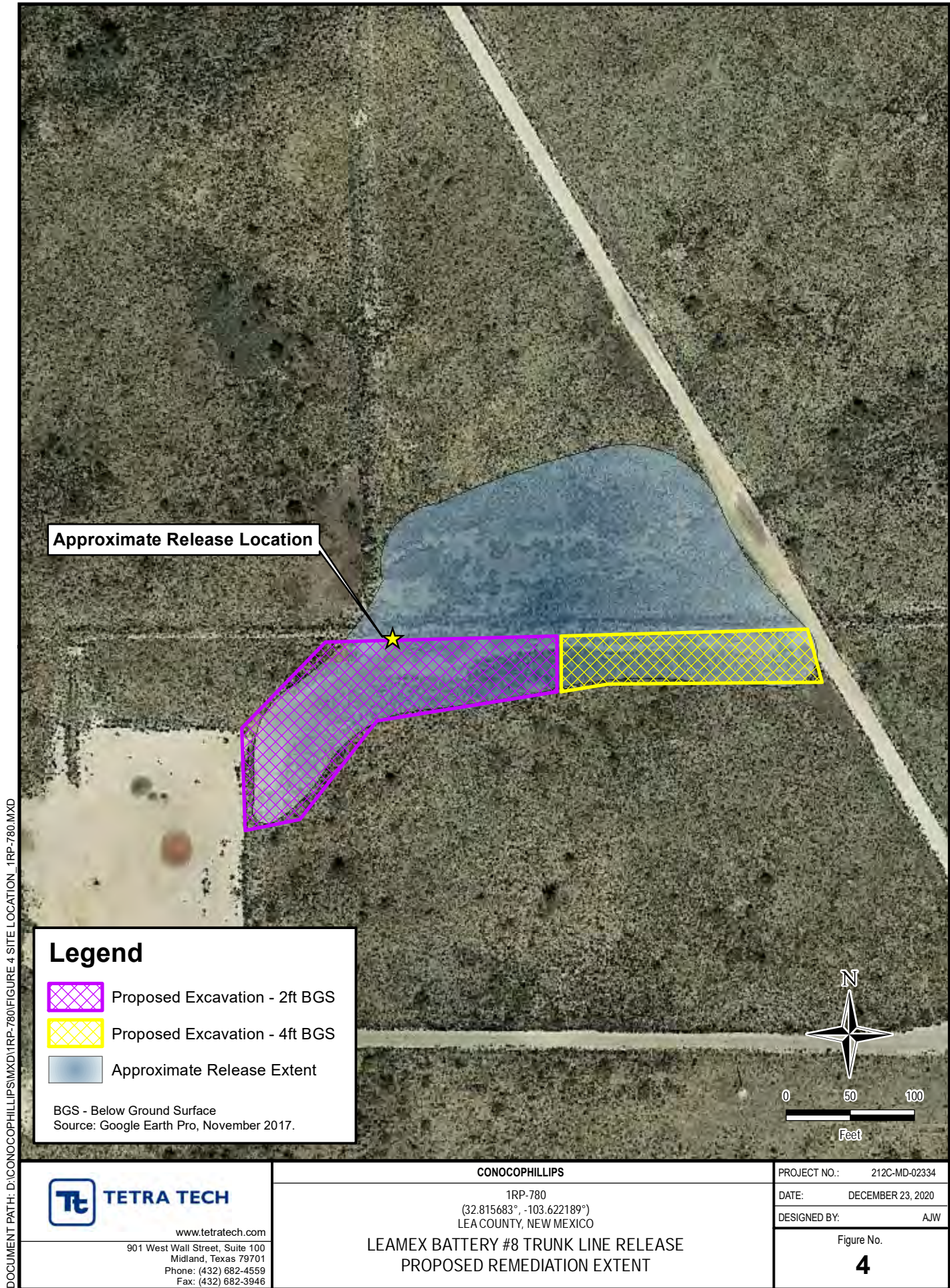
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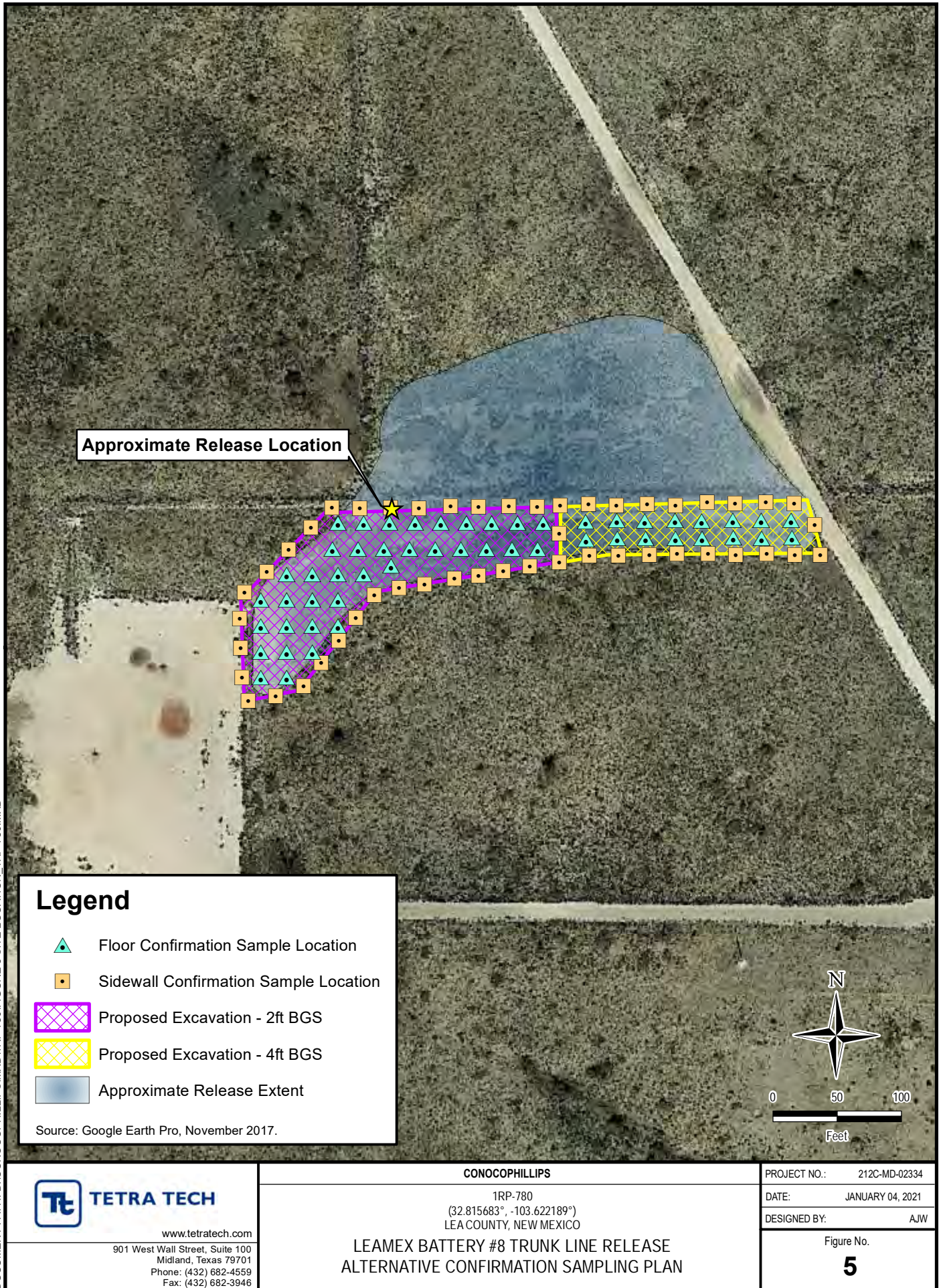
DESIGNED BY: AJW

Figure No.

2







TABLES

TABLE 1
BORING LOCATION COORDINATES
SOIL ASSESSMENT - 1RP-780
CONOCOPHILLIPS
LEAMEX BATTERY #8 TRUNKLINE RELEASE
LEA COUNTY, NM

Boring ID	Latitude	Longitude
AH-1	32.815625	-103.622619
AH-2	32.816111	-103.622140
AH-3	32.815949	-103.621149
AH-4	32.815567	-103.621441
AH-5	32.815447	-103.622288
BH-1	32.815625	-103.622346
BH-2	32.815877	-103.622077
BH-3	32.815931	-103.621541
BH-4	32.815704	-103.621651

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT - 1RP-780
CONOCOPHILLIPS
LEAMEX BATTERY #8 TRUNKLINE RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride ¹		BTEX ²								TPH ³							
							Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO ⁴		DRO		ORO	
			C ₃ - C ₁₀														C ₁₀ - C ₂₈		C ₂₈ - C ₄₀			
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
BH-1	11/11/2020	0-1	-	-	664		< 0.00106		< 0.00528		< 0.00264		< 0.00687		-	< 0.104		2.54	J	5.77	B	8.31
		2-3	-	-	387		< 0.00108		< 0.00538		< 0.00269		< 0.00700		-	< 0.104		< 4.15		< 4.15		-
		4-5	-	-	237		< 0.00104		< 0.00520		< 0.00260		< 0.00676		-	< 0.102		< 4.08		< 4.08		-
		6-7	-	-	19.8	J	< 0.00105		< 0.00525		< 0.00263		< 0.00683		-	< 0.103		< 4.10		< 4.10		-
		9-10	-	-	10.4	J	< 0.00104		< 0.00521		< 0.00261		< 0.00677		-	< 0.102		< 4.08		< 4.08		-
		14-15	-	-	< 20.5		< 0.00105		< 0.00524		0.00495		0.0453		0.0503	< 0.103		< 4.09		< 4.09		-
		19-20	90.2	0.4	< 20.3		< 0.00103		< 0.00517		< 0.00258		0.00424	J	0.00424	0.0269	B J	< 4.07		< 4.07		0.0269
BH-2	11/11/2020	0-1	-	-	26.1		< 0.00106		< 0.00528		< 0.00264		0.00230	J	0.00230	0.0275	B J	1.65	J	3.13	B J	4.81
		2-3	-	-	101		< 0.00114		< 0.00572		< 0.00287		0.00180	J	0.00180	0.0263	B J	2.10	J	4.16	B J	6.29
		4-5	-	-	360		< 0.00103		< 0.00515		< 0.00257		< 0.00669		-	0.0244	B J	< 4.06		< 4.06		0.0244
		6-7	-	-	832		< 0.00109		< 0.00546		< 0.00273		< 0.00709		-	0.0285	B J	< 4.18		< 4.18		0.0285
		9-10	-	-	< 20.5		< 0.00105		< 0.00526		< 0.00263		< 0.00684		-	0.0242	B J	< 4.10		< 4.10		0.0242
		14-15	-	-	< 20.7		< 0.00107		< 0.00536		< 0.00268		< 0.00696		-	0.0240	B J	< 4.14		< 4.14		0.0240
		19-20	101	0	< 20.7		< 0.00107		< 0.00537		< 0.00269		< 0.00699		-	0.0252	B J	< 4.15		< 4.15		0.0252
BH-3	11/11/2020	0-1	-	-	30.9		< 0.00103		< 0.00517		< 0.00259		< 0.00672		-	0.0244	B J	4.05	J	13.4	B	17.5
		2-3	-	-	120		< 0.00106		< 0.00530		< 0.00265		< 0.00689		-	0.0242	B J	2.38	J	7.29	B	9.69
		4-5	-	-	197		< 0.00112		< 0.00562		< 0.00281		< 0.00731		-	0.0242	B J	< 4.25		< 4.25		0.0242
		6-7	-	-	217		< 0.00107		< 0.00537		< 0.00269		< 0.00699		-	0.0258	B J	< 4.15		< 4.15		0.0258
		9-10	-	-	26.1		< 0.00122		< 0.00608		< 0.00304		< 0.00791		-	0.0268	B J	< 4.43		< 4.43		0.0268
		14-15	-	-	< 21.5		< 0.00115		< 0.00573		< 0.00286		< 0.00744		-	0.0278	B J	< 4.29		< 4.29		0.0278
		19-20	67.4	0.1	< 20.7		< 0.00107		< 0.00535		< 0.00267		< 0.00695		-	0.0336	B J	< 4.14		0.315	J	0.349
BH-4	11/11/2020	0-1	-	-	288		< 0.00110		< 0.00551		< 0.00275		< 0.00716		-	0.0356	B J	2.69	J	13.1		15.8
		2-3	-	-	651		< 0.00109		< 0.00547		< 0.00274		< 0.00712		-	0.0339	B J	< 4.19		4.37		4.40
		4-5	-	-	239		< 0.00103		< 0.00516		< 0.00258		< 0.00671		-	0.0292	B J	< 4.10		1.19	J	1.22
		6-7	-	-	166		< 0.00106		< 0.00529		< 0.00265		< 0.00688		-	0.0470	B J	< 4.16		0.293	J	0.340
		9-10	-	-	45.7		0.000947	B J	< 0.00512		< 0.00256		0.00149	J	0.00244	0.0447	B J	< 4.05		< 4.05		0.0447
		14-15	-	-	28.7		0.000916	B J	< 0.00529		< 0.00265		< 0.00688		0.000916	0.0339	B J	< 4.12		< 4.102		0.0339
		19-20	89.1	0.2	30.4		0.00102	B J	< 0.00521		< 0.00261		< 0.00678		0.00102	0.0385	B J	< 4.09		< 4.09		0.0385
AH-1 (BH-5)	12/1/2020	0-1	-	-	< 20.7		< 0.00107		< 0.00533		< 0.00267		< 0.00693		-	< 0.103		19.5		44.6		64.1
AH-2 (BH-6)	12/1/2020	0-1	-	-	< 20.5		< 0.00105		< 0.00527		< 0.00263		< 0.00685		-	< 0.103		7.54		35.0		42.5
AH-3 (BH-7)	12/1/2020	0-1	-	-	< 20.4		< 0.00104		< 0.00520		< 0.00260		< 0.00677		-	< 0.102		3.04	J	22.9		25.9
AH-4 (BH-8)	12/1/2020	0-1	-	-	< 20.4		< 0.00104		< 0.00522		< 0.00261		< 0.00678		-	0.0989	J	4.59		25.1		29.8
AH-5 (BH-9)	12/1/2020	0-1	-	-	< 20.5		< 0.00105		< 0.00525		< 0.00263		< 0.00683		-	< 0.104		4.93		25.2		30.1

NOTES:

ft. Feet
bgs Below ground surface
ppm Parts per million
mg/kg Milligrams per kilogram
TPH Total Petroleum Hydrocarbons
GRO Gasoline range organics
DRO Diesel range organics
ORO Oil range organics

Bold and italicized values indicate exceedance of proposed RRALs

Shaded rows indicate intervals proposed for excavation.

- 1 EPA Method 300.0
2 EPA Method 8260B
3 EPA Method 8015
4 EPA Method 8015D/GRO

QUALIFIERS:

- B The same analyte is found in the associated blank.
J The identification of the analyte is acceptable; the reported value is an estimate.

APPENDIX A C-141 Forms

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company ConocoPhillips Company	Contact Kenneth N. Andersen
Address 4001 Penbrook, Odessa, TX 79762-5917	Telephone No. 505.391.3158
Facility Name Leamex Btry # 8	Facility Type Oil and Gas
Surface Owner State of New Mexico	Mineral Owner State of New Mexico
Lease No B-2118	

LOCATION OF RELEASE

Unit Letter M	Section 24	Township 17S	Range 33E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea Co.
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Latitude **32.81572N** Longitude **103.62224W**

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 16.7 bbl (0 oil, 16.7 water)	Volume Recovered (0 oil, 0 water)
Source of Release Leamex Btry # 8 6" trunk line.	Date and Hour of Occurrence 02/18/2006 0700hrs	Date and Hour of Discovery 02/18/2006 0730hrs
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* The discharge was caused by the failure of a 6" 1500 series Flextelic gasket between two flanges. The site will be remediated according to the "NMOCD Guidelines for leaks, spills, and releases of August 13, 1993".		
Describe Area Affected and Cleanup Action Taken.* The area affected was 30'X300' of dry caliche rock/black dirt pasture with no cows present. There was no cleanup action taken as there was no fluid to pick up.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: <i>Kenneth N. Andersen</i>	OIL CONSERVATION DIVISION	
Printed Name: Kenneth N. Andersen	Approved by District Supervisor:	
Title: HSE Lead	Approval Date:	Expiration Date:
E-mail Address: ken.n.andersen@conocophillips.com	Conditions of Approval:	
Date: 03/07/2006 Phone: 505.391.3158	Attached <input type="checkbox"/>	

• Attach Additional Sheets If Necessary

ConocoPhillips 217817

Facility - FPAC0607344696
Incident - nPAC0607344786

Released to Imaging: 4/24/2023 10:46:38 AM
15011



Permian Basin Asset

Record of Accidental Discharge of Crude Oil, Water or Hazardous Substances

Lease: Leamex Trunk Line #		Lease # B - 2118 (API, RRC, State, or Federal)		Field: Maljamar	
Discovered By: James Ledford			Date and Time Discovered: 2/18/06 @ 0730hrs		
Date and Time Discharge Began: 2/18/06 @ 0700hrs			Date and Time Discharge Ended: 2/18/06 @ 0735hrs		
Discharge Site: Unit Letter M Sec. 24 Blk/TWP 17S Survey/Range 33E County/State Lea, NM					
Latitude 32.81572N Longitude 103.62224W					
Highway Map Location: From Maljamar turn south on 126 go 0.6 mile, turn left on 125 go 8.5 miles, turn left on Derby Rd. go 1.2 miles where the road Y take the right turn go 1 mile turn right go .8 mile, well is on the right leak is 200 ft north east of the well.					
Location Of Discharge: 200 ft north east of well			<input type="checkbox"/> Flowline ----- Feet to Nearest Wellhead Number <input checked="" type="checkbox"/> Injection Line 200 south west Feet to Nearest Wellhead Number #59		
Specific Source of Discharge: 6" 1500 series Flextelic gasket.					
Describe Cause of Discharge : Gasket failure					
Actions taken to Prevent Reoccurrence: Replaced 6" 1500 series Flextelic gasket.					
Describe Nature and Extent of Area Affected: 30'X300' of dry caliche rock/black dirt pasture with no cows present					
Weather Conditions: Cloudy Breezy Cold					
Clean-Up Action Taken: None					
Remediation Action Taken: Will sample spill site and submit a remediations plan based on laboratory results to the NMOCD.					
Specific Source of Discharge <input type="checkbox"/> Flowline <input type="checkbox"/> Tank Piping <input type="checkbox"/> Vessel Piping <input type="checkbox"/> Line Check Valve <input type="checkbox"/> Wellhead Connections <input type="checkbox"/> Tank			Possible Reasons For Failure <input type="checkbox"/> Pump <input type="checkbox"/> Vessel <input type="checkbox"/> Chemical Storage Container <input type="checkbox"/> Chemical Injection Equipment <input type="checkbox"/> Casing/Tubing Communication <input checked="" type="checkbox"/> Other: 6" 1500 series Flextelic gasket.		
			<input type="checkbox"/> Corrosion <input type="checkbox"/> External <input type="checkbox"/> Internal <input checked="" type="checkbox"/> Fatigue <input type="checkbox"/> Age		
			<input type="checkbox"/> Human Error <input type="checkbox"/> Pressure <input type="checkbox"/> Instrumentation <input type="checkbox"/> Mechanical <input type="checkbox"/> Weather		
			Cost of Cleanup/Repair: \$25,000.00		
Pipe Size = 6" inches <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Fiberglass <input type="checkbox"/> Plastic <input type="checkbox"/> Transite					
<input checked="" type="checkbox"/> Buried <input type="checkbox"/> Surface <input type="checkbox"/> Bare					
<input checked="" type="checkbox"/> Coated <input type="checkbox"/> Internal <input type="checkbox"/> External <input type="checkbox"/> Cement Lined					
<input type="checkbox"/> Plastic Lined <input type="checkbox"/> Fiberglass <input type="checkbox"/> Was Line Chemically Treated <input type="checkbox"/> Other					
Names and Volumes of Substances Spilled			Remedial Action Picked Up		
0 BBL Oil 16.7 BBL Produced Water			0 BBL Oil 0 BBL Produced Water		
Gallons Chemical Spilled			Gallons Chemical		
Gas Volume Released (MCF)			<input type="checkbox"/> Gas Leak <input type="checkbox"/> Blowdown <input type="checkbox"/> Upset		
Other -- Explain:					
Federal, State, and Local Agencies Notified:			Job Number		
Agency	Person Notified	Date and Time Notified	Method Used		Person Notifying
		@	<input type="checkbox"/> Phone	<input type="checkbox"/> Fax	
		@	<input type="checkbox"/> Phone	<input type="checkbox"/> Fax	
		@	<input type="checkbox"/> Phone	<input type="checkbox"/> Fax	
Landowner/Tenant:			Telephone No.		
I Hereby Certify That The Above Information Is True To The Best Of My Knowledge.					
Name and Title: James Ledford MSO					
Date: 2/21/06					

PBBU Discharge Report Form 10-24-03

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: Charles R. Beauvais II Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 04/24/2023

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: Charles R. Beauvais II Date: _____

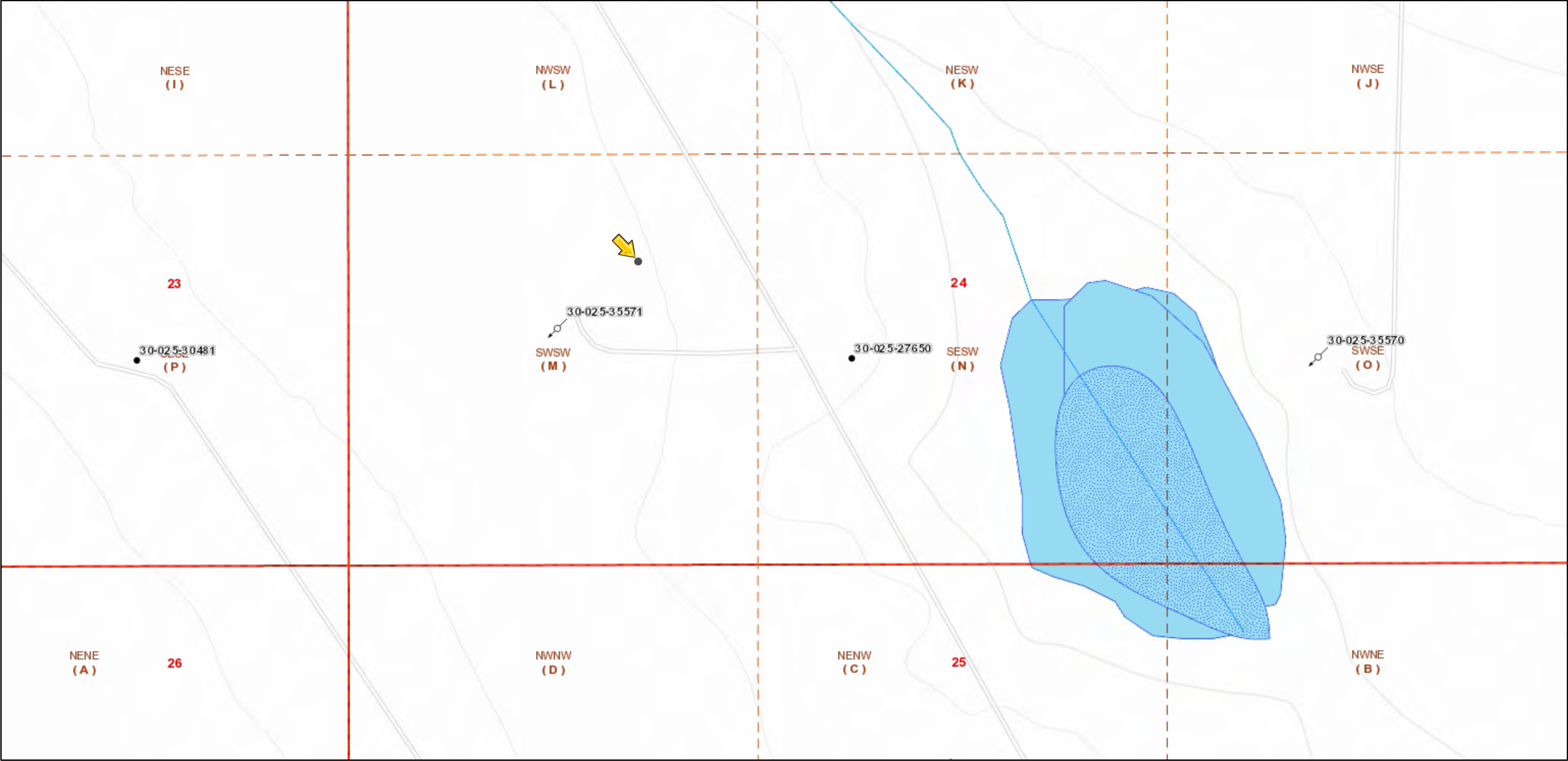
email: _____ Telephone: _____

OCD OnlyReceived by: Jocelyn Harimon Date: 04/24/2023☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral ApprovedSignature: _____ Date: 04/24/2023

APPENDIX B

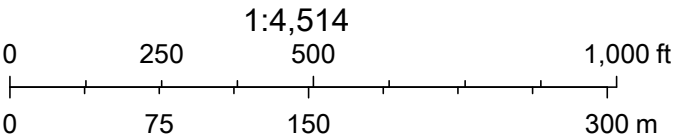
Site Characterization Data

1RP-780



7/27/2020, 1:57:34 PM

- Override 1
- CO2, New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Gas, Plugged
- Gas, Temporarily Abandoned
- Gas, Active
- Gas, Cancelled
- Gas, New
- Injection, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection, Temporarily Abandoned
- Water, Active



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI,

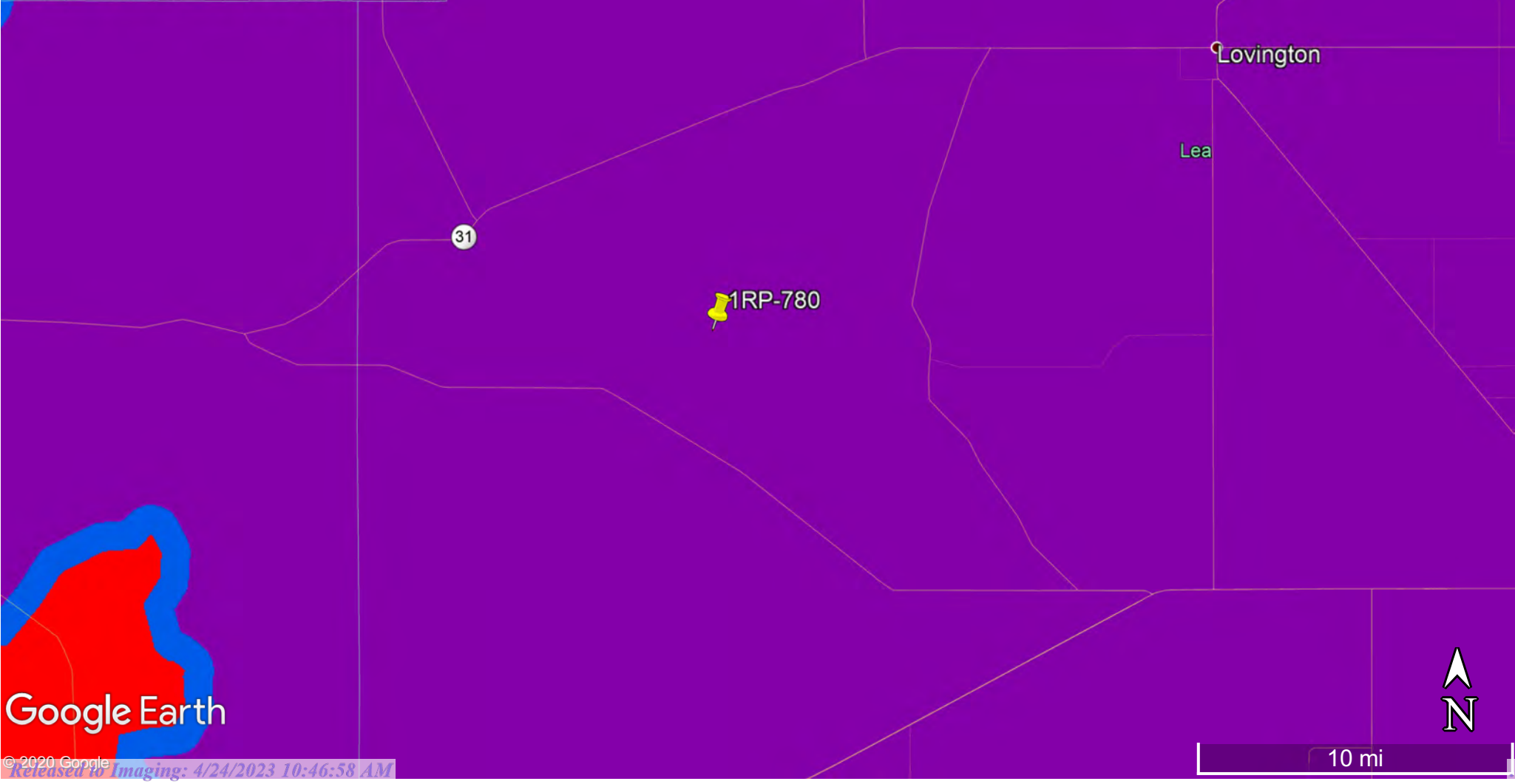
KARST POTENTIAL MAP

1RP-780



Legend

-  1RP-780
-  High
-  Low
-  Medium



Google Earth



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned,

C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 6	Q 4	Q 16	Sec 4	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	WaterColumn
L_01881		L	LE	3	3	3	13	17S	33E	628778	3633100*	1420	242		
L_01881	R	L	LE	3	3	3	13	17S	33E	628778	3633100*	1420	242		
L_01880		L	LE	3	4	3	13	17S	33E	629181	3633106*	1425	245		
L_14594 POD1		L	LE	4	4	3	13	17S	33E	629387	3633116	1478	300	180	120
L_01880 POD8		L	LE	3	3	3	13	17S	33E	628772	3633188	1508	320		
L_01695	R	L	ED	4	4	2	25	17S	33E	630220	3630704*	1585	230	137	93
L_01880 POD9		L	LE	4	3	4	13	17S	33E	629828	3633044	1593	260		

Average Depth to Water: **158 feet**

Minimum Depth: **137 feet**

Maximum Depth: **180 feet**

Record Count: 7

UTM NAD83 Radius Search (in meters):

Easting (X): 628981.48

Northing (Y): 3631694.4

Radius: 1600

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/21/20 7:50 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

APPENDIX C

Photographic Documentation



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing west of release area.	1
	SITE NAME	Leamex Battery #8 Trunk Line Release	6/9/2020



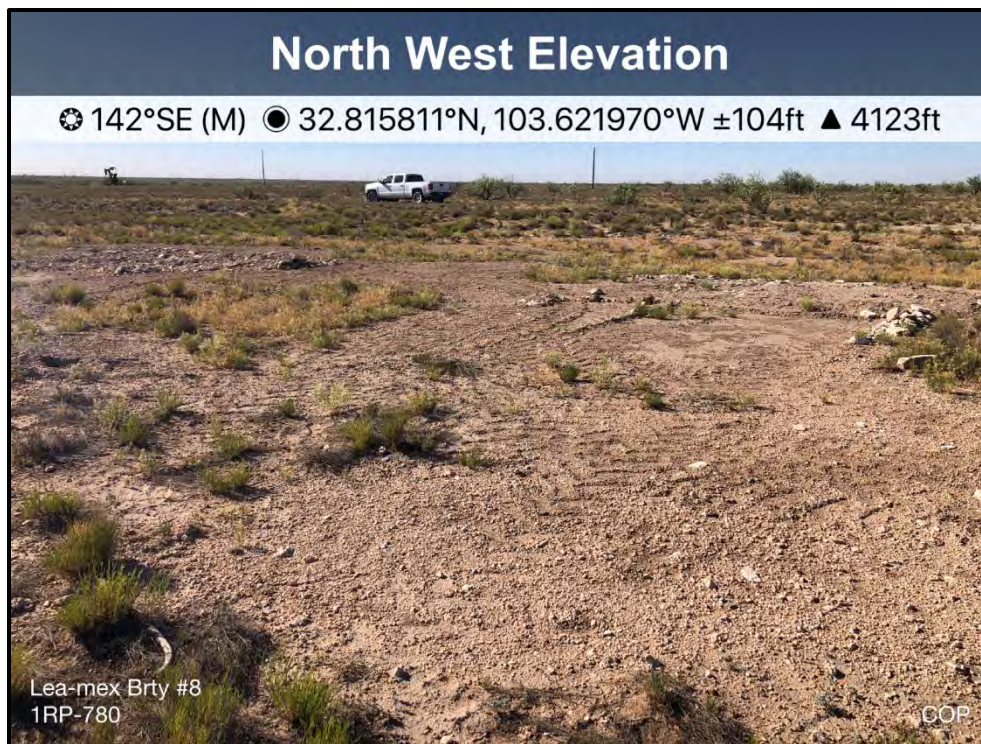
TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing west of release area.	2
	SITE NAME	Leamex Battery #8 Trunk Line Release	6/9/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing northwest of release area.	3
	SITE NAME	Leamex Battery #8 Trunk Line Release	6/9/2020



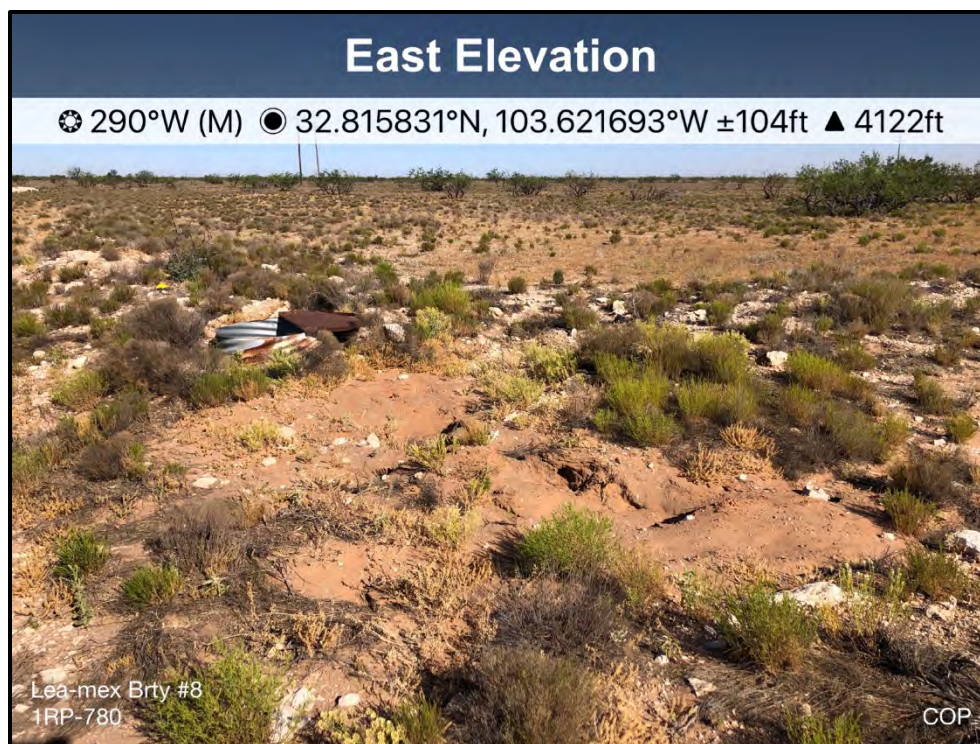
TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing southwest of release area.	4
	SITE NAME	Leamex Battery #8 Trunk Line Release	6/9/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing southeast of release area.	5
	SITE NAME	Leamex Battery #8 Trunk Line Release	6/9/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing southwest of release area.	6
	SITE NAME	Leamex Battery #8 Trunk Line Release	6/9/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing west of release area.	7
	SITE NAME	Leamex Battery #8 Trunk Line Release	6/9/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02152	DESCRIPTION	View facing southwest of well pad area.	8
	SITE NAME	Leamex Battery #8 Trunk Line Release	6/9/2020

APPENDIX D

Laboratory Analytical Data



ANALYTICAL REPORT

November 27, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group: L1286030
Samples Received: 11/14/2020
Project Number: 212C-MD-02334 TASK05
Description: Leamex Battery #8 Trunk Line Release (IRP-780)

Report To: Christian Llull
901 West Wall
Suite 100
Midland, TX 79701

Entire Report Reviewed By:

Erica McNeese
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

AI: Accreditations & Locations
Sc: Sample Chain of Custody

55
56

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

BH-1 (0-1') L1286030-01 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 15:30

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580211	1	11/22/20 04:35	11/22/20 04:42	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 01:19	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580695	1.01	11/19/20 20:08	11/22/20 19:49	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580414	1	11/19/20 20:08	11/22/20 04:11	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/24/20 23:52	JN	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn

BH-1 (2-3') L1286030-02 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 15:40

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580211	1	11/22/20 04:35	11/22/20 04:42	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 01:48	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580695	1	11/19/20 20:08	11/22/20 20:12	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580414	1	11/19/20 20:08	11/22/20 04:31	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 00:05	JN	Mt. Juliet, TN

⁵ Sr⁶ Qc⁷ Gl⁸ Al

BH-1 (4-5') L1286030-03 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 15:50

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580211	1	11/22/20 04:35	11/22/20 04:42	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 01:57	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580695	1	11/19/20 20:08	11/22/20 20:34	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580414	1	11/19/20 20:08	11/22/20 04:49	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 00:17	JN	Mt. Juliet, TN

⁹ Sc

BH-1 (6-7') L1286030-04 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 16:00

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580211	1	11/22/20 04:35	11/22/20 04:42	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 02:26	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580695	1	11/19/20 20:08	11/22/20 20:57	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580414	1	11/19/20 20:08	11/22/20 05:09	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 00:30	JN	Mt. Juliet, TN

BH-1 (9-10') L1286030-05 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 16:10

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580211	1	11/22/20 04:35	11/22/20 04:42	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 02:35	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580695	1	11/19/20 20:08	11/22/20 21:19	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580414	1	11/19/20 20:08	11/22/20 05:28	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 00:43	JN	Mt. Juliet, TN

BH-1 (14-15') L1286030-06 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 16:20

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 02:45	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580695	1.01	11/19/20 20:08	11/22/20 21:41	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 00:56	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 00:55	JN	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn

BH-1 (19-20') L1286030-07 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 16:30

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 02:54	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 18:05	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 01:15	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 01:08	JN	Mt. Juliet, TN

⁵ Sr⁶ Qc⁷ Gl⁸ Al

BH-2 (0-1') L1286030-08 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 16:40

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 03:04	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 18:37	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 01:34	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 03:53	JN	Mt. Juliet, TN

⁹ Sc

BH-2 (2-3') L1286030-09 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 16:50

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 03:13	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 18:58	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1.01	11/19/20 20:08	11/22/20 01:53	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 01:21	JN	Mt. Juliet, TN

BH-2 (4-5') L1286030-10 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 17:00

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 03:45	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 19:18	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 02:12	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 01:34	JN	Mt. Juliet, TN

BH-2 (6-7') L1286030-11 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 17:10

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 03:54	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1.01	11/19/20 20:08	11/22/20 19:50	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 02:30	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 02:12	JN	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn

BH-2 (9-10') L1286030-12 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 17:20

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 04:04	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 20:10	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 02:49	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 02:24	JN	Mt. Juliet, TN

⁵ Sr⁶ Qc⁷ Gl⁸ Al

BH-2 (14-15') L1286030-13 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 17:30

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 04:14	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 20:31	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 03:08	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 02:37	JN	Mt. Juliet, TN

⁹ Sc

BH-2 (19-20') L1286030-14 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 17:40

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581716	1	11/24/20 22:08	11/25/20 04:23	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 20:52	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 03:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 02:50	JN	Mt. Juliet, TN

BH-3 (0-1') L1286030-15 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 17:50

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580212	1	11/22/20 04:25	11/22/20 04:33	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 18:09	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 21:12	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 03:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 04:19	JN	Mt. Juliet, TN

BH-3 (2-3') L1286030-16 Solid

				Collected by Joe Tyler	Collected date/time 11/11/20 18:00	Received date/time 11/14/20 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 18:28	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 21:33	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 04:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 04:06	JN	Mt. Juliet, TN

BH-3 (4-5') L1286030-17 Solid

				Collected by Joe Tyler	Collected date/time 11/11/20 18:10	Received date/time 11/14/20 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 18:37	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1.01	11/19/20 20:08	11/22/20 21:54	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 04:24	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 03:03	JN	Mt. Juliet, TN

BH-3 (6-7') L1286030-18 Solid

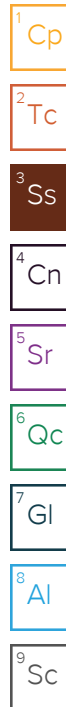
				Collected by Joe Tyler	Collected date/time 11/11/20 18:20	Received date/time 11/14/20 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 18:47	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1.01	11/19/20 20:08	11/22/20 22:15	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 04:42	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 03:15	JN	Mt. Juliet, TN

BH-3 (9-10') L1286030-19 Solid

				Collected by Joe Tyler	Collected date/time 11/11/20 18:30	Received date/time 11/14/20 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 18:56	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 22:35	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 05:01	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 03:28	JN	Mt. Juliet, TN

BH-3 (14-15') L1286030-20 Solid

				Collected by Joe Tyler	Collected date/time 11/11/20 18:40	Received date/time 11/14/20 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 19:06	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 20:08	11/22/20 23:22	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 20:08	11/22/20 05:20	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1580901	1	11/24/20 09:26	11/25/20 03:41	JN	Mt. Juliet, TN



BH-3 (19-20') L1286030-21 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 18:50

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 19:15	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 22:28	11/22/20 23:42	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 22:28	11/22/20 05:39	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1582399	1	11/25/20 16:37	11/26/20 00:01	JN	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn

BH-4 (0-1') L1286030-22 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 19:00

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 20:03	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 22:28	11/23/20 00:03	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 22:28	11/22/20 05:58	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1582399	1	11/25/20 16:37	11/26/20 01:05	JN	Mt. Juliet, TN

⁵ Sr⁶ Qc⁷ Gl⁸ Al

BH-4 (2-3') L1286030-23 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 19:10

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 20:12	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580808	1	11/19/20 22:28	11/23/20 00:24	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 22:28	11/22/20 06:16	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1582399	1	11/25/20 16:37	11/25/20 23:35	JN	Mt. Juliet, TN

⁹ Sc

BH-4 (4-5') L1286030-24 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 19:20

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 20:22	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1582017	1.01	11/19/20 22:28	11/24/20 18:29	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 22:28	11/22/20 06:35	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1582399	1.01	11/25/20 16:37	11/25/20 23:48	JN	Mt. Juliet, TN

BH-4 (6-7') L1286030-25 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 19:30

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580213	1	11/22/20 01:45	11/22/20 02:19	JAV	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 20:31	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580870	1	11/19/20 22:28	11/23/20 05:00	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580421	1	11/19/20 22:28	11/22/20 06:54	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1582399	1.01	11/25/20 16:37	11/26/20 00:14	JN	Mt. Juliet, TN

BH-4 (9-10') L1286030-26 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 19:40

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580214	1	11/22/20 01:20	11/22/20 01:36	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 20:41	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580870	1	11/19/20 22:28	11/23/20 05:21	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580602	1	11/19/20 22:28	11/22/20 04:23	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1582399	1	11/25/20 16:37	11/26/20 00:26	JN	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

BH-4 (14-15') L1286030-27 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 19:50

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580214	1	11/22/20 01:20	11/22/20 01:36	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 20:50	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580870	1	11/19/20 22:28	11/23/20 05:41	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580602	1	11/19/20 22:28	11/22/20 04:42	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1582399	1	11/25/20 16:37	11/26/20 00:39	JN	Mt. Juliet, TN

BH-4 (19-20') L1286030-28 Solid

Collected by
Joe Tyler

Collected date/time
11/11/20 20:00

Received date/time
11/14/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1580214	1	11/22/20 01:20	11/22/20 01:36	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1581717	1	11/24/20 16:54	11/24/20 21:00	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1580870	1	11/19/20 22:28	11/23/20 06:02	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1580602	1	11/19/20 22:28	11/22/20 05:01	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1582399	1	11/25/20 16:37	11/26/20 00:52	JN	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Erica McNeese
Project Manager



Collected date/time: 11/11/20 15:30

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.2		1	11/22/2020 04:42	WG1580211

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	664		9.46	20.6	1	11/25/2020 01:19	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1.01	11/22/2020 19:49	WG1580695
(S) a,a,a-Trifluorotoluene(FID)	99.4			77.0-120		11/22/2020 19:49	WG1580695

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000494	0.00106	1	11/22/2020 04:11	WG1580414
Toluene	U		0.00137	0.00528	1	11/22/2020 04:11	WG1580414
Ethylbenzene	U		0.000779	0.00264	1	11/22/2020 04:11	WG1580414
Total Xylenes	U		0.000930	0.00687	1	11/22/2020 04:11	WG1580414
(S) Toluene-d8	95.4			75.0-131		11/22/2020 04:11	WG1580414
(S) 4-Bromofluorobenzene	94.3			67.0-138		11/22/2020 04:11	WG1580414
(S) 1,2-Dichloroethane-d4	113			70.0-130		11/22/2020 04:11	WG1580414

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.54	<u>J</u>	1.66	4.11	1	11/24/2020 23:52	WG1580901
C28-C40 Oil Range	5.77	<u>B</u>	0.282	4.11	1	11/24/2020 23:52	WG1580901
(S) o-Terphenyl	87.8			18.0-148		11/24/2020 23:52	WG1580901

Collected date/time: 11/11/20 15:40

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.3		1	11/22/2020 04:42	WG1580211

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	387		9.55	20.8	1	11/25/2020 01:48	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	11/22/2020 20:12	WG1580695
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		11/22/2020 20:12	WG1580695

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000503	0.00108	1	11/22/2020 04:31	WG1580414
Toluene	U		0.00140	0.00538	1	11/22/2020 04:31	WG1580414
Ethylbenzene	U		0.000794	0.00269	1	11/22/2020 04:31	WG1580414
Total Xylenes	U		0.000948	0.00700	1	11/22/2020 04:31	WG1580414
(S) Toluene-d8	95.2			75.0-131		11/22/2020 04:31	WG1580414
(S) 4-Bromofluorobenzene	95.3			67.0-138		11/22/2020 04:31	WG1580414
(S) 1,2-Dichloroethane-d4	110			70.0-130		11/22/2020 04:31	WG1580414

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.67	4.15	1	11/25/2020 00:05	WG1580901
C28-C40 Oil Range	U		0.285	4.15	1	11/25/2020 00:05	WG1580901
(S) o-Terphenyl	78.5			18.0-148		11/25/2020 00:05	WG1580901

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.1		1	11/22/2020 04:42	WG1580211

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	237		9.38	20.4	1	11/25/2020 01:57	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0221	0.102	1	11/22/2020 20:34	WG1580695
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		11/22/2020 20:34	WG1580695

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000486	0.00104	1	11/22/2020 04:49	WG1580414
Toluene	U		0.00135	0.00520	1	11/22/2020 04:49	WG1580414
Ethylbenzene	U		0.000766	0.00260	1	11/22/2020 04:49	WG1580414
Total Xylenes	U		0.000915	0.00676	1	11/22/2020 04:49	WG1580414
(S) Toluene-d8	93.3			75.0-131		11/22/2020 04:49	WG1580414
(S) 4-Bromofluorobenzene	93.4			67.0-138		11/22/2020 04:49	WG1580414
(S) 1,2-Dichloroethane-d4	113			70.0-130		11/22/2020 04:49	WG1580414

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.64	4.08	1	11/25/2020 00:17	WG1580901
C28-C40 Oil Range	U		0.279	4.08	1	11/25/2020 00:17	WG1580901
(S) o-Terphenyl	91.4			18.0-148		11/25/2020 00:17	WG1580901

Collected date/time: 11/11/20 16:00

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.6		1	11/22/2020 04:42	WG1580211

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	19.8	J	9.43	20.5	1	11/25/2020 02:26	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0222	0.103	1	11/22/2020 20:57	WG1580695
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		11/22/2020 20:57	WG1580695

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000490	0.00105	1	11/22/2020 05:09	WG1580414
Toluene	U		0.00137	0.00525	1	11/22/2020 05:09	WG1580414
Ethylbenzene	U		0.000774	0.00263	1	11/22/2020 05:09	WG1580414
Total Xylenes	U		0.000924	0.00683	1	11/22/2020 05:09	WG1580414
(S) Toluene-d8	97.5			75.0-131		11/22/2020 05:09	WG1580414
(S) 4-Bromofluorobenzene	94.1			67.0-138		11/22/2020 05:09	WG1580414
(S) 1,2-Dichloroethane-d4	113			70.0-130		11/22/2020 05:09	WG1580414

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.65	4.10	1	11/25/2020 00:30	WG1580901
C28-C40 Oil Range	U		0.281	4.10	1	11/25/2020 00:30	WG1580901
(S) o-Terphenyl	98.0			18.0-148		11/25/2020 00:30	WG1580901

Collected date/time: 11/11/20 16:10

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.9		1	11/22/2020 04:42	WG1580211

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	10.4	J	9.39	20.4	1	11/25/2020 02:35	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0222	0.102	1	11/22/2020 21:19	WG1580695
(S) a,a,a-Trifluorotoluene(FID)	99.9			77.0-120		11/22/2020 21:19	WG1580695

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000487	0.00104	1	11/22/2020 05:28	WG1580414
Toluene	U		0.00135	0.00521	1	11/22/2020 05:28	WG1580414
Ethylbenzene	U		0.000768	0.00261	1	11/22/2020 05:28	WG1580414
Total Xylenes	U		0.000917	0.00677	1	11/22/2020 05:28	WG1580414
(S) Toluene-d8	94.9			75.0-131		11/22/2020 05:28	WG1580414
(S) 4-Bromofluorobenzene	94.3			67.0-138		11/22/2020 05:28	WG1580414
(S) 1,2-Dichloroethane-d4	115			70.0-130		11/22/2020 05:28	WG1580414

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.64	4.08	1	11/25/2020 00:43	WG1580901
C28-C40 Oil Range	U		0.280	4.08	1	11/25/2020 00:43	WG1580901
(S) o-Terphenyl	89.0			18.0-148		11/25/2020 00:43	WG1580901

Collected date/time: 11/11/20 16:20

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.7		1	11/22/2020 04:33	WG1580212

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.42	20.5	1	11/25/2020 02:45	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0224	0.103	1.01	11/22/2020 21:41	WG1580695
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		11/22/2020 21:41	WG1580695

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000489	0.00105	1	11/22/2020 00:56	WG1580421
Toluene	U		0.00136	0.00524	1	11/22/2020 00:56	WG1580421
Ethylbenzene	0.00495		0.000772	0.00262	1	11/22/2020 00:56	WG1580421
Total Xylenes	0.0453		0.000921	0.00681	1	11/22/2020 00:56	WG1580421
(S) Toluene-d8	104			75.0-131		11/22/2020 00:56	WG1580421
(S) 4-Bromofluorobenzene	107			67.0-138		11/22/2020 00:56	WG1580421
(S) 1,2-Dichloroethane-d4	93.3			70.0-130		11/22/2020 00:56	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.65	4.09	1	11/25/2020 00:55	WG1580901
C28-C40 Oil Range	U		0.280	4.09	1	11/25/2020 00:55	WG1580901
(S) o-Terphenyl	82.2			18.0-148		11/25/2020 00:55	WG1580901

Collected date/time: 11/11/20 16:30

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.4		1	11/22/2020 04:33	WG1580212

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.35	20.3	1	11/25/2020 02:54	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0269	B J	0.0221	0.102	1	11/22/2020 18:05	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	94.2			77.0-120		11/22/2020 18:05	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000483	0.00103	1	11/22/2020 01:15	WG1580421
Toluene	U		0.00134	0.00517	1	11/22/2020 01:15	WG1580421
Ethylbenzene	U		0.000762	0.00258	1	11/22/2020 01:15	WG1580421
Total Xylenes	0.00424	J	0.000910	0.00672	1	11/22/2020 01:15	WG1580421
(S) Toluene-d8	103			75.0-131		11/22/2020 01:15	WG1580421
(S) 4-Bromofluorobenzene	106			67.0-138		11/22/2020 01:15	WG1580421
(S) 1,2-Dichloroethane-d4	93.4			70.0-130		11/22/2020 01:15	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.64	4.07	1	11/25/2020 01:08	WG1580901
C28-C40 Oil Range	U		0.279	4.07	1	11/25/2020 01:08	WG1580901
(S) o-Terphenyl	92.0			18.0-148		11/25/2020 01:08	WG1580901

Collected date/time: 11/11/20 16:40

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.3		1	11/22/2020 04:33	WG1580212

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	26.1		9.45	20.6	1	11/25/2020 03:04	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0275	B J	0.0223	0.103	1	11/22/2020 18:37	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	94.4			77.0-120		11/22/2020 18:37	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000493	0.00106	1	11/22/2020 01:34	WG1580421
Toluene	U		0.00137	0.00528	1	11/22/2020 01:34	WG1580421
Ethylbenzene	U		0.000778	0.00264	1	11/22/2020 01:34	WG1580421
Total Xylenes	0.00230	J	0.000929	0.00686	1	11/22/2020 01:34	WG1580421
(S) Toluene-d8	104			75.0-131		11/22/2020 01:34	WG1580421
(S) 4-Bromofluorobenzene	105			67.0-138		11/22/2020 01:34	WG1580421
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		11/22/2020 01:34	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.65	J	1.65	4.11	1	11/25/2020 03:53	WG1580901
C28-C40 Oil Range	3.13	B J	0.282	4.11	1	11/25/2020 03:53	WG1580901
(S) o-Terphenyl	82.6			18.0-148		11/25/2020 03:53	WG1580901

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.8		1	11/22/2020 04:33	WG1580212

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	101		9.81	21.3	1	11/25/2020 03:13	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0263	B J	0.0231	0.107	1	11/22/2020 18:58	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	94.1			77.0-120		11/22/2020 18:58	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000535	0.00114	1.01	11/22/2020 01:53	WG1580421
Toluene	U		0.00148	0.00572	1.01	11/22/2020 01:53	WG1580421
Ethylbenzene	U		0.000843	0.00287	1.01	11/22/2020 01:53	WG1580421
Total Xylenes	0.00180	J	0.00101	0.00743	1.01	11/22/2020 01:53	WG1580421
(S) Toluene-d8	103			75.0-131		11/22/2020 01:53	WG1580421
(S) 4-Bromofluorobenzene	107			67.0-138		11/22/2020 01:53	WG1580421
(S) 1,2-Dichloroethane-d4	93.5			70.0-130		11/22/2020 01:53	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.10	J	1.72	4.27	1	11/25/2020 01:21	WG1580901
C28-C40 Oil Range	4.16	B J	0.292	4.27	1	11/25/2020 01:21	WG1580901
(S) o-Terphenyl	86.0			18.0-148		11/25/2020 01:21	WG1580901

Collected date/time: 11/11/20 17:00

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.5		1	11/22/2020 04:33	WG1580212

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	360		9.34	20.3	1	11/25/2020 03:45	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0244	B J	0.0220	0.102	1	11/22/2020 19:18	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	94.5			77.0-120		11/22/2020 19:18	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000481	0.00103	1	11/22/2020 02:12	WG1580421
Toluene	U		0.00134	0.00515	1	11/22/2020 02:12	WG1580421
Ethylbenzene	U		0.000759	0.00257	1	11/22/2020 02:12	WG1580421
Total Xylenes	U		0.000906	0.00669	1	11/22/2020 02:12	WG1580421
(S) Toluene-d8	105			75.0-131		11/22/2020 02:12	WG1580421
(S) 4-Bromofluorobenzene	105			67.0-138		11/22/2020 02:12	WG1580421
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		11/22/2020 02:12	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.63	4.06	1	11/25/2020 01:34	WG1580901
C28-C40 Oil Range	U		0.278	4.06	1	11/25/2020 01:34	WG1580901
(S) o-Terphenyl	102			18.0-148		11/25/2020 01:34	WG1580901

Collected date/time: 11/11/20 17:10

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.6		1	11/22/2020 04:33	WG1580212

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	832		9.62	20.9	1	11/25/2020 03:54	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0285	B J	0.0229	0.106	1.01	11/22/2020 19:50	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	94.1			77.0-120		11/22/2020 19:50	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000510	0.00109	1	11/22/2020 02:30	WG1580421
Toluene	U		0.00142	0.00546	1	11/22/2020 02:30	WG1580421
Ethylbenzene	U		0.000804	0.00273	1	11/22/2020 02:30	WG1580421
Total Xylenes	U		0.000960	0.00709	1	11/22/2020 02:30	WG1580421
(S) Toluene-d8	103			75.0-131		11/22/2020 02:30	WG1580421
(S) 4-Bromofluorobenzene	103			67.0-138		11/22/2020 02:30	WG1580421
(S) 1,2-Dichloroethane-d4	94.3			70.0-130		11/22/2020 02:30	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.68	4.18	1	11/25/2020 02:12	WG1580901
C28-C40 Oil Range	U		0.287	4.18	1	11/25/2020 02:12	WG1580901
(S) o-Terphenyl	84.5			18.0-148		11/25/2020 02:12	WG1580901

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

Collected date/time: 11/11/20 17:20

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.5		1	11/22/2020 04:33	WG1580212

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.44	20.5	1	11/25/2020 04:04	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0242	B J	0.0223	0.103	1	11/22/2020 20:10	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	94.1			77.0-120		11/22/2020 20:10	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000491	0.00105	1	11/22/2020 02:49	WG1580421
Toluene	U		0.00137	0.00526	1	11/22/2020 02:49	WG1580421
Ethylbenzene	U		0.000775	0.00263	1	11/22/2020 02:49	WG1580421
Total Xylenes	U		0.000926	0.00684	1	11/22/2020 02:49	WG1580421
(S) Toluene-d8	103			75.0-131		11/22/2020 02:49	WG1580421
(S) 4-Bromofluorobenzene	105			67.0-138		11/22/2020 02:49	WG1580421
(S) 1,2-Dichloroethane-d4	91.8			70.0-130		11/22/2020 02:49	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.65	4.10	1	11/25/2020 02:24	WG1580901
C28-C40 Oil Range	U		0.281	4.10	1	11/25/2020 02:24	WG1580901
(S) o-Terphenyl	98.6			18.0-148		11/25/2020 02:24	WG1580901

Collected date/time: 11/11/20 17:30

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.6		1	11/22/2020 04:33	WG1580212

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.53	20.7	1	11/25/2020 04:14	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0240	B J	0.0225	0.104	1	11/22/2020 20:31	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	95.3			77.0-120		11/22/2020 20:31	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000500	0.00107	1	11/22/2020 03:08	WG1580421
Toluene	U		0.00139	0.00536	1	11/22/2020 03:08	WG1580421
Ethylbenzene	U		0.000789	0.00268	1	11/22/2020 03:08	WG1580421
Total Xylenes	U		0.000943	0.00696	1	11/22/2020 03:08	WG1580421
(S) Toluene-d8	104			75.0-131		11/22/2020 03:08	WG1580421
(S) 4-Bromofluorobenzene	106			67.0-138		11/22/2020 03:08	WG1580421
(S) 1,2-Dichloroethane-d4	95.1			70.0-130		11/22/2020 03:08	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.67	4.14	1	11/25/2020 02:37	WG1580901
C28-C40 Oil Range	U		0.284	4.14	1	11/25/2020 02:37	WG1580901
(S) o-Terphenyl	93.4			18.0-148		11/25/2020 02:37	WG1580901

Collected date/time: 11/11/20 17:40

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.4		1	11/22/2020 04:33	WG1580212

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.54	20.7	1	11/25/2020 04:23	WG1581716

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0252	B J	0.0225	0.104	1	11/22/2020 20:52	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	94.0			77.0-120		11/22/2020 20:52	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000502	0.00107	1	11/22/2020 03:27	WG1580421
Toluene	U		0.00140	0.00537	1	11/22/2020 03:27	WG1580421
Ethylbenzene	U		0.000792	0.00269	1	11/22/2020 03:27	WG1580421
Total Xylenes	U		0.000946	0.00699	1	11/22/2020 03:27	WG1580421
(S) Toluene-d8	104			75.0-131		11/22/2020 03:27	WG1580421
(S) 4-Bromofluorobenzene	103			67.0-138		11/22/2020 03:27	WG1580421
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		11/22/2020 03:27	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.67	4.15	1	11/25/2020 02:50	WG1580901
C28-C40 Oil Range	U		0.284	4.15	1	11/25/2020 02:50	WG1580901
(S) o-Terphenyl	93.0			18.0-148		11/25/2020 02:50	WG1580901

Collected date/time: 11/11/20 17:50

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.3		1	11/22/2020 04:33	WG1580212

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	30.9		9.36	20.3	1	11/24/2020 18:09	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0244	B J	0.0221	0.102	1	11/22/2020 21:12	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	93.6			77.0-120		11/22/2020 21:12	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000483	0.00103	1	11/22/2020 03:46	WG1580421
Toluene	U		0.00134	0.00517	1	11/22/2020 03:46	WG1580421
Ethylbenzene	U		0.000762	0.00259	1	11/22/2020 03:46	WG1580421
Total Xylenes	U		0.000910	0.00672	1	11/22/2020 03:46	WG1580421
(S) Toluene-d8	104			75.0-131		11/22/2020 03:46	WG1580421
(S) 4-Bromofluorobenzene	107			67.0-138		11/22/2020 03:46	WG1580421
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		11/22/2020 03:46	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.05	J	1.64	4.07	1	11/25/2020 04:19	WG1580901
C28-C40 Oil Range	13.4	B	0.279	4.07	1	11/25/2020 04:19	WG1580901
(S) o-Terphenyl	91.7			18.0-148		11/25/2020 04:19	WG1580901

Collected date/time: 11/11/20 18:00

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.1		1	11/22/2020 02:19	WG1580213

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	120		9.47	20.6	1	11/24/2020 18:28	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0242	B J	0.0223	0.103	1	11/22/2020 21:33	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	93.6			77.0-120		11/22/2020 21:33	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000495	0.00106	1	11/22/2020 04:05	WG1580421
Toluene	U		0.00138	0.00530	1	11/22/2020 04:05	WG1580421
Ethylbenzene	U		0.000781	0.00265	1	11/22/2020 04:05	WG1580421
Total Xylenes	U		0.000933	0.00689	1	11/22/2020 04:05	WG1580421
(S) Toluene-d8	104			75.0-131		11/22/2020 04:05	WG1580421
(S) 4-Bromofluorobenzene	106			67.0-138		11/22/2020 04:05	WG1580421
(S) 1,2-Dichloroethane-d4	94.8			70.0-130		11/22/2020 04:05	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.38	J	1.66	4.12	1	11/25/2020 04:06	WG1580901
C28-C40 Oil Range	7.29	B	0.282	4.12	1	11/25/2020 04:06	WG1580901
(S) o-Terphenyl	93.6			18.0-148		11/25/2020 04:06	WG1580901

Collected date/time: 11/11/20 18:10

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.2		1	11/22/2020 02:19	WG1580213

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	197		9.77	21.2	1	11/24/2020 18:37	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0242	B J	0.0233	0.107	1.01	11/22/2020 21:54	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	94.0			77.0-120		11/22/2020 21:54	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000525	0.00112	1	11/22/2020 04:24	WG1580421
Toluene	U		0.00146	0.00562	1	11/22/2020 04:24	WG1580421
Ethylbenzene	U		0.000829	0.00281	1	11/22/2020 04:24	WG1580421
Total Xylenes	U		0.000989	0.00731	1	11/22/2020 04:24	WG1580421
(S) Toluene-d8	105			75.0-131		11/22/2020 04:24	WG1580421
(S) 4-Bromofluorobenzene	103			67.0-138		11/22/2020 04:24	WG1580421
(S) 1,2-Dichloroethane-d4	97.3			70.0-130		11/22/2020 04:24	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.71	4.25	1	11/25/2020 03:03	WG1580901
C28-C40 Oil Range	U		0.291	4.25	1	11/25/2020 03:03	WG1580901
(S) o-Terphenyl	93.5			18.0-148		11/25/2020 03:03	WG1580901

Collected date/time: 11/11/20 18:20

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.4		1	11/22/2020 02:19	WG1580213

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	217		9.54	20.7	1	11/24/2020 18:47	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

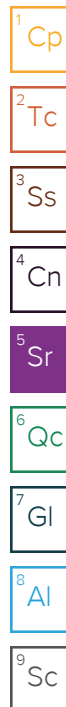
Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0258	B J	0.0227	0.105	1.01	11/22/2020 22:15	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	93.8			77.0-120		11/22/2020 22:15	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000502	0.00107	1	11/22/2020 04:42	WG1580421
Toluene	U		0.00140	0.00537	1	11/22/2020 04:42	WG1580421
Ethylbenzene	U		0.000792	0.00269	1	11/22/2020 04:42	WG1580421
Total Xylenes	U		0.000946	0.00699	1	11/22/2020 04:42	WG1580421
(S) Toluene-d8	101			75.0-131		11/22/2020 04:42	WG1580421
(S) 4-Bromofluorobenzene	104			67.0-138		11/22/2020 04:42	WG1580421
(S) 1,2-Dichloroethane-d4	94.8			70.0-130		11/22/2020 04:42	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.67	4.15	1	11/25/2020 03:15	WG1580901
C28-C40 Oil Range	U		0.284	4.15	1	11/25/2020 03:15	WG1580901
(S) o-Terphenyl	95.8			18.0-148		11/25/2020 03:15	WG1580901



Collected date/time: 11/11/20 18:30

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	90.2		1	11/22/2020 02:19	WG1580213

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	26.1		10.2	22.2	1	11/24/2020 18:56	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0268	B J	0.0240	0.111	1	11/22/2020 22:35	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	93.3			77.0-120		11/22/2020 22:35	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000568	0.00122	1	11/22/2020 05:01	WG1580421
Toluene	U		0.00158	0.00608	1	11/22/2020 05:01	WG1580421
Ethylbenzene	U		0.000896	0.00304	1	11/22/2020 05:01	WG1580421
Total Xylenes	U		0.00107	0.00791	1	11/22/2020 05:01	WG1580421
(S) Toluene-d8	103			75.0-131		11/22/2020 05:01	WG1580421
(S) 4-Bromofluorobenzene	103			67.0-138		11/22/2020 05:01	WG1580421
(S) 1,2-Dichloroethane-d4	95.7			70.0-130		11/22/2020 05:01	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.78	4.43	1	11/25/2020 03:28	WG1580901
C28-C40 Oil Range	U		0.304	4.43	1	11/25/2020 03:28	WG1580901
(S) o-Terphenyl	93.5			18.0-148		11/25/2020 03:28	WG1580901

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.2		1	11/22/2020 02:19	WG1580213

¹ Cp

² Tc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.87	21.5	1	11/24/2020 19:06	WG1581717

³ Ss

⁴ Cn

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0278	B J	0.0233	0.107	1	11/22/2020 23:22	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	90.9			77.0-120		11/22/2020 23:22	WG1580808

⁵ Sr

⁶ Qc

⁷ Gl

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000535	0.00115	1	11/22/2020 05:20	WG1580421
Toluene	U		0.00149	0.00573	1	11/22/2020 05:20	WG1580421
Ethylbenzene	U		0.000844	0.00286	1	11/22/2020 05:20	WG1580421
Total Xylenes	U		0.00101	0.00744	1	11/22/2020 05:20	WG1580421
(S) Toluene-d8	103			75.0-131		11/22/2020 05:20	WG1580421
(S) 4-Bromofluorobenzene	105			67.0-138		11/22/2020 05:20	WG1580421
(S) 1,2-Dichloroethane-d4	96.1			70.0-130		11/22/2020 05:20	WG1580421

⁸ Al

⁹ Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.73	4.29	1	11/25/2020 03:41	WG1580901
C28-C40 Oil Range	U		0.294	4.29	1	11/25/2020 03:41	WG1580901
(S) o-Terphenyl	93.2			18.0-148		11/25/2020 03:41	WG1580901

Collected date/time: 11/11/20 18:50

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.6		1	11/22/2020 02:19	WG1580213

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.52	20.7	1	11/24/2020 19:15	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0336	B J	0.0225	0.103	1	11/22/2020 23:42	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	90.5			77.0-120		11/22/2020 23:42	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000499	0.00107	1	11/22/2020 05:39	WG1580421
Toluene	U		0.00139	0.00535	1	11/22/2020 05:39	WG1580421
Ethylbenzene	U		0.000788	0.00267	1	11/22/2020 05:39	WG1580421
Total Xylenes	U		0.000941	0.00695	1	11/22/2020 05:39	WG1580421
(S) Toluene-d8	104			75.0-131		11/22/2020 05:39	WG1580421
(S) 4-Bromofluorobenzene	107			67.0-138		11/22/2020 05:39	WG1580421
(S) 1,2-Dichloroethane-d4	94.4			70.0-130		11/22/2020 05:39	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.67	4.14	1	11/26/2020 00:01	WG1582399
C28-C40 Oil Range	0.315	J	0.283	4.14	1	11/26/2020 00:01	WG1582399
(S) o-Terphenyl	61.8			18.0-148		11/26/2020 00:01	WG1582399

Collected date/time: 11/11/20 19:00

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.2		1	11/22/2020 02:19	WG1580213

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	288		9.67	21.0	1	11/24/2020 20:03	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

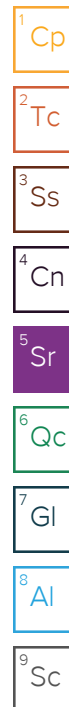
Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0356	B J	0.0228	0.105	1	11/23/2020 00:03	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	93.9			77.0-120		11/23/2020 00:03	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000514	0.00110	1	11/22/2020 05:58	WG1580421
Toluene	U		0.00143	0.00551	1	11/22/2020 05:58	WG1580421
Ethylbenzene	U		0.000812	0.00275	1	11/22/2020 05:58	WG1580421
Total Xylenes	U		0.000969	0.00716	1	11/22/2020 05:58	WG1580421
(S) Toluene-d8	104			75.0-131		11/22/2020 05:58	WG1580421
(S) 4-Bromofluorobenzene	103			67.0-138		11/22/2020 05:58	WG1580421
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		11/22/2020 05:58	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.69	J	1.69	4.20	1	11/26/2020 01:05	WG1582399
C28-C40 Oil Range	13.1		0.288	4.20	1	11/26/2020 01:05	WG1582399
(S) o-Terphenyl	59.0			18.0-148		11/26/2020 01:05	WG1582399



Collected date/time: 11/11/20 19:10

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.5		1	11/22/2020 02:19	WG1580213

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	651		9.63	20.9	1	11/24/2020 20:12	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0339	B J	0.0227	0.105	1	11/23/2020 00:24	WG1580808
(S) a,a,a-Trifluorotoluene(FID)	94.8			77.0-120		11/23/2020 00:24	WG1580808

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000511	0.00109	1	11/22/2020 06:16	WG1580421
Toluene	U		0.00142	0.00547	1	11/22/2020 06:16	WG1580421
Ethylbenzene	U		0.000807	0.00274	1	11/22/2020 06:16	WG1580421
Total Xylenes	U		0.000963	0.00712	1	11/22/2020 06:16	WG1580421
(S) Toluene-d8	103			75.0-131		11/22/2020 06:16	WG1580421
(S) 4-Bromofluorobenzene	106			67.0-138		11/22/2020 06:16	WG1580421
(S) 1,2-Dichloroethane-d4	95.5			70.0-130		11/22/2020 06:16	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.69	4.19	1	11/25/2020 23:35	WG1582399
C28-C40 Oil Range	4.37		0.287	4.19	1	11/25/2020 23:35	WG1582399
(S) o-Terphenyl	57.4			18.0-148		11/25/2020 23:35	WG1582399

Collected date/time: 11/11/20 19:20

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.4		1	11/22/2020 02:19	WG1580213

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	239		9.35	20.3	1	11/24/2020 20:22	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0292	B J	0.0222	0.103	1.01	11/24/2020 18:29	WG1582017
(S) a,a,a-Trifluorotoluene(FID)	89.7			77.0-120		11/24/2020 18:29	WG1582017

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000482	0.00103	1	11/22/2020 06:35	WG1580421
Toluene	U		0.00134	0.00516	1	11/22/2020 06:35	WG1580421
Ethylbenzene	U		0.000761	0.00258	1	11/22/2020 06:35	WG1580421
Total Xylenes	U		0.000908	0.00671	1	11/22/2020 06:35	WG1580421
(S) Toluene-d8	103			75.0-131		11/22/2020 06:35	WG1580421
(S) 4-Bromofluorobenzene	107			67.0-138		11/22/2020 06:35	WG1580421
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		11/22/2020 06:35	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.66	4.10	1.01	11/25/2020 23:48	WG1582399
C28-C40 Oil Range	1.19	J	0.281	4.10	1.01	11/25/2020 23:48	WG1582399
(S) o-Terphenyl	79.8			18.0-148		11/25/2020 23:48	WG1582399

Collected date/time: 11/11/20 19:30

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.2		1	11/22/2020 02:19	WG1580213

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	166		9.47	20.6	1	11/24/2020 20:31	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0470	B J	0.0223	0.103	1	11/23/2020 05:00	WG1580870
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		11/23/2020 05:00	WG1580870

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000494	0.00106	1	11/22/2020 06:54	WG1580421
Toluene	U		0.00138	0.00529	1	11/22/2020 06:54	WG1580421
Ethylbenzene	U		0.000780	0.00265	1	11/22/2020 06:54	WG1580421
Total Xylenes	U		0.000931	0.00688	1	11/22/2020 06:54	WG1580421
(S) Toluene-d8	106			75.0-131		11/22/2020 06:54	WG1580421
(S) 4-Bromofluorobenzene	102			67.0-138		11/22/2020 06:54	WG1580421
(S) 1,2-Dichloroethane-d4	96.9			70.0-130		11/22/2020 06:54	WG1580421

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.68	4.16	1.01	11/26/2020 00:14	WG1582399
C28-C40 Oil Range	0.293	J	0.285	4.16	1.01	11/26/2020 00:14	WG1582399
(S) o-Terphenyl	72.6			18.0-148		11/26/2020 00:14	WG1582399

Collected date/time: 11/11/20 19:40

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.8		1	11/22/2020 01:36	WG1580214

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	mg/kg		mg/kg	mg/kg			
Chloride	45.7		9.31	20.2	1	11/24/2020 20:41	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	mg/kg		mg/kg	mg/kg			
TPH (GC/FID) Low Fraction	0.0447	B J	0.0220	0.101	1	11/23/2020 05:21	WG1580870
(S) a,a,a-Trifluorotoluene(FID)	94.8			77.0-120		11/23/2020 05:21	WG1580870

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	mg/kg		mg/kg	mg/kg			
Benzene	0.000947	B J	0.000478	0.00102	1	11/22/2020 04:23	WG1580602
Toluene	U		0.00133	0.00512	1	11/22/2020 04:23	WG1580602
Ethylbenzene	U		0.000755	0.00256	1	11/22/2020 04:23	WG1580602
Total Xylenes	0.00149	J	0.000901	0.00666	1	11/22/2020 04:23	WG1580602
(S) Toluene-d8	110			75.0-131		11/22/2020 04:23	WG1580602
(S) 4-Bromofluorobenzene	99.7			67.0-138		11/22/2020 04:23	WG1580602
(S) 1,2-Dichloroethane-d4	105			70.0-130		11/22/2020 04:23	WG1580602

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	mg/kg		mg/kg	mg/kg			
C10-C28 Diesel Range	U		1.63	4.05	1	11/26/2020 00:26	WG1582399
C28-C40 Oil Range	U		0.277	4.05	1	11/26/2020 00:26	WG1582399
(S) o-Terphenyl	61.6			18.0-148		11/26/2020 00:26	WG1582399

Collected date/time: 11/11/20 19:50

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.2		1	11/22/2020 01:36	WG1580214

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	28.7		9.47	20.6	1	11/24/2020 20:50	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0339	B J	0.0223	0.103	1	11/23/2020 05:41	WG1580870
(S) a,a,a-Trifluorotoluene(FID)	94.7			77.0-120		11/23/2020 05:41	WG1580870

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	0.000916	B J	0.000494	0.00106	1	11/22/2020 04:42	WG1580602
Toluene	U		0.00138	0.00529	1	11/22/2020 04:42	WG1580602
Ethylbenzene	U		0.000780	0.00265	1	11/22/2020 04:42	WG1580602
Total Xylenes	U		0.000931	0.00688	1	11/22/2020 04:42	WG1580602
(S) Toluene-d8	112			75.0-131		11/22/2020 04:42	WG1580602
(S) 4-Bromofluorobenzene	98.4			67.0-138		11/22/2020 04:42	WG1580602
(S) 1,2-Dichloroethane-d4	103			70.0-130		11/22/2020 04:42	WG1580602

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.66	4.12	1	11/26/2020 00:39	WG1582399
C28-C40 Oil Range	U		0.282	4.12	1	11/26/2020 00:39	WG1582399
(S) o-Terphenyl	70.0			18.0-148		11/26/2020 00:39	WG1582399

Collected date/time: 11/11/20 20:00

L1286030

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.9		1	11/22/2020 01:36	WG1580214

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	30.4		9.40	20.4	1	11/24/2020 21:00	WG1581717

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0385	B J	0.0222	0.102	1	11/23/2020 06:02	WG1580870
(S) a,a,a-Trifluorotoluene(FID)	94.8			77.0-120		11/23/2020 06:02	WG1580870

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	0.00102	B J	0.000487	0.00104	1	11/22/2020 05:01	WG1580602
Toluene	U		0.00136	0.00521	1	11/22/2020 05:01	WG1580602
Ethylbenzene	U		0.000769	0.00261	1	11/22/2020 05:01	WG1580602
Total Xylenes	U		0.000918	0.00678	1	11/22/2020 05:01	WG1580602
(S) Toluene-d8	111			75.0-131		11/22/2020 05:01	WG1580602
(S) 4-Bromofluorobenzene	99.9			67.0-138		11/22/2020 05:01	WG1580602
(S) 1,2-Dichloroethane-d4	104			70.0-130		11/22/2020 05:01	WG1580602

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.64	4.09	1	11/26/2020 00:52	WG1582399
C28-C40 Oil Range	U		0.280	4.09	1	11/26/2020 00:52	WG1582399
(S) o-Terphenyl	58.6			18.0-148		11/26/2020 00:52	WG1582399

Method Blank (MB)

(MB) R3596243-1 11/22/20 04:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Total Solids	0.000			

L1286030-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1286030-01 11/22/20 04:42 • (DUP) R3596243-3 11/22/20 04:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Solids	97.2	96.8	1	0.466		10

Laboratory Control Sample (LCS)

(LCS) R3596243-2 11/22/20 04:42

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1286030-06,07,08,09,10,11,12,13,14,15](#)

Method Blank (MB)

(MB) R3596236-1 11/22/20 04:33

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.00100			

L1286030-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1286030-12 11/22/20 04:33 • (DUP) R3596236-3 11/22/20 04:33

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	97.5	97.6	1	0.155		10

Laboratory Control Sample (LCS)

(LCS) R3596236-2 11/22/20 04:33

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1286030-16,17,18,19,20,21,22,23,24,25](#)

Method Blank (MB)

(MB) R3596224-1 11/22/20 02:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Total Solids	0.00200			

L1286030-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1286030-24 11/22/20 02:19 • (DUP) R3596224-3 11/22/20 02:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Solids	98.4	98.0	1	0.425		10

Laboratory Control Sample (LCS)

(LCS) R3596224-2 11/22/20 02:19

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Total Solids	50.0	50.1	100	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1286030-26,27,28](#)

Method Blank (MB)

(MB) R3596222-1 11/22/20 01:36

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.00200			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L1286044-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1286044-01 11/22/20 01:36 • (DUP) R3596222-3 11/22/20 01:36

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	79.7	80.4	1	0.900		10

⁷ Gl

⁸ Al

Laboratory Control Sample (LCS)

(LCS) R3596222-2 11/22/20 01:36

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

⁹ Sc

Wet Chemistry by Method 300.0

[L1286030-01,02,03,04,05,06,07,08,09,10,11,12,13,14](#)

Method Blank (MB)

(MB) R3597303-1 11/24/20 23:39

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1286010-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1286010-17 11/25/20 00:13 • (DUP) R3597303-3 11/25/20 00:22

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	58.6	57.5	1	1.89		20

L1286030-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1286030-14 11/25/20 04:23 • (DUP) R3597303-6 11/25/20 04:33

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3597303-2 11/24/20 23:49

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	213	107	90.0-110	

L1286030-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1286030-03 11/25/20 01:57 • (MS) R3597303-4 11/25/20 02:07 • (MSD) R3597303-5 11/25/20 02:16

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	510	237	754	743	101	99.4	1	80.0-120			1.39	20

Wet Chemistry by Method 300.0

[L1286030-15,16,17,18,19,20,21,22,23,24,25,26,27,28](#)

Method Blank (MB)

(MB) R3597138-1 11/24/20 17:50

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1286030-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1286030-15 11/24/20 18:09 • (DUP) R3597138-3 11/24/20 18:18

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	30.9	31.9	1	3.45		20

L1286037-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1286037-06 11/24/20 22:16 • (DUP) R3597138-6 11/24/20 22:26

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	36.1	36.9	1	2.12		20

Laboratory Control Sample (LCS)

(LCS) R3597138-2 11/24/20 17:59

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	208	104	90.0-110	

L1286030-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1286030-21 11/24/20 19:15 • (MS) R3597138-4 11/24/20 19:44 • (MSD) R3597138-5 11/24/20 19:53

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	517	U	528	537	102	104	1	80.0-120			1.58	20

Volatile Organic Compounds (GC) by Method 8015D/GRO L1286030-01,02,03,04,05,06

Method Blank (MB)

(MB) R3596196-2 11/22/20 14:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	102			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3596196-1 11/22/20 13:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.87	88.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			100	77.0-120	

L1288645-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288645-15 11/22/20 19:27 • (MS) R3596196-3 11/22/20 22:50 • (MSD) R3596196-4 11/22/20 23:23

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	145	U	147	156	101	108	26.3	10.0-151			5.94	28
(S) a,a,a-Trifluorotoluene(FID)					102	105		77.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

L1286030-07,08,09,10,11,12,13,14,15,16,17,18,19,20,21,22,23

Method Blank (MB)

(MB) R3596377-2 11/22/20 16:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0234	⌵	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	95.6			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3596377-1 11/22/20 15:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.27	114	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			112	77.0-120	

L1286010-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1286010-22 11/22/20 17:44 • (MS) R3596377-3 11/23/20 00:44 • (MSD) R3596377-4 11/23/20 01:21

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.76	0.0312	4.96	5.16	85.6	89.1	1	10.0-151			3.93	28
(S) a,a,a-Trifluorotoluene(FID)					104	103		77.0-120				

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO L1286030-25,26,27,28

Method Blank (MB)

(MB) R3596378-2 11/23/20 03:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0267	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	96.3			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3596378-1 11/23/20 02:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.56	119	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			109	77.0-120	

L1286030-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1286030-26 11/23/20 05:21 • (MS) R3596378-3 11/23/20 12:14 • (MSD) R3596378-4 11/23/20 12:34

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.57	0.0447	4.87	5.06	86.7	89.1	1	10.0-151			3.87	28
(S) a,a,a-Trifluorotoluene(FID)					109	109		77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

L1286030-24

Method Blank (MB)

(MB) R3597211-2 11/24/20 17:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0302	↓	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	97.6			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3597211-1 11/24/20 16:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.12	111	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			113	77.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

L1286030-01,02,03,04,05

Method Blank (MB)

(MB) R3596303-2 11/21/20 22:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	96.4			75.0-131
(S) 4-Bromofluorobenzene	92.9			67.0-138
(S) 1,2-Dichloroethane-d4	120			70.0-130

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3596303-1 11/21/20 21:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.108	86.4	70.0-123	
Ethylbenzene	0.125	0.109	87.2	74.0-126	
Toluene	0.125	0.107	85.6	75.0-121	
Xylenes, Total	0.375	0.310	82.7	72.0-127	
(S) Toluene-d8			92.4	75.0-131	
(S) 4-Bromofluorobenzene			98.4	67.0-138	
(S) 1,2-Dichloroethane-d4			125	70.0-130	

L1286010-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1286010-22 11/22/20 03:53 • (MS) R3596303-3 11/22/20 05:46 • (MSD) R3596303-4 11/22/20 06:06

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.137	U	0.0993	0.0960	72.6	70.2	1	10.0-149			3.36	37
Ethylbenzene	0.137	U	0.0994	0.101	72.6	73.9	1	10.0-160			1.75	38
Toluene	0.137	U	0.103	0.0996	75.2	72.8	1	10.0-156			3.24	38
Xylenes, Total	0.410	U	0.229	0.273	55.7	66.4	1	10.0-160			17.5	38
(S) Toluene-d8					94.6	96.1		75.0-131				
(S) 4-Bromofluorobenzene					91.2	90.8		67.0-138				
(S) 1,2-Dichloroethane-d4					117	113		70.0-130				

Volatile Organic Compounds (GC/MS) by Method 8260B

L1286030-06,07,08,09,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25

Method Blank (MB)

(MB) R3596434-3 11/21/20 23:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	103			75.0-131
(S) 4-Bromofluorobenzene	107			67.0-138
(S) 1,2-Dichloroethane-d4	91.9			70.0-130

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3596434-1 11/21/20 22:29 • (LCSD) R3596434-2 11/21/20 22:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.123	0.134	98.4	107	70.0-123			8.56	20
Ethylbenzene	0.125	0.135	0.146	108	117	74.0-126			7.83	20
Toluene	0.125	0.129	0.136	103	109	75.0-121			5.28	20
Xylenes, Total	0.375	0.400	0.427	107	114	72.0-127			6.53	20
(S) Toluene-d8				103	104	75.0-131				
(S) 4-Bromofluorobenzene				103	103	67.0-138				
(S) 1,2-Dichloroethane-d4				94.3	97.3	70.0-130				

L1286030-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1286030-25 11/22/20 06:54 • (MS) R3596434-4 11/22/20 07:13 • (MSD) R3596434-5 11/22/20 07:32

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.132	U	0.0927	0.131	70.1	99.2	1	10.0-149			34.4	37
Ethylbenzene	0.132	U	0.103	0.144	77.5	109	1	10.0-160			33.6	38
Toluene	0.132	U	0.0952	0.133	72.0	101	1	10.0-156			33.3	38
Xylenes, Total	0.397	U	0.302	0.424	76.0	107	1	10.0-160			33.8	38
(S) Toluene-d8					102	102		75.0-131				
(S) 4-Bromofluorobenzene					105	106		67.0-138				
(S) 1,2-Dichloroethane-d4					97.4	96.9		70.0-130				

Volatile Organic Compounds (GC/MS) by Method 8260B

[L1286030-26,27,28](#)

Method Blank (MB)

(MB) R3596481-2 11/22/20 01:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	0.000900	⌵	0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	112			75.0-131
(S) 4-Bromofluorobenzene	98.9			67.0-138
(S) 1,2-Dichloroethane-d4	102			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3596481-1 11/22/20 01:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.134	107	70.0-123	
Ethylbenzene	0.125	0.135	108	74.0-126	
Toluene	0.125	0.125	100	75.0-121	
Xylenes, Total	0.375	0.403	107	72.0-127	
(S) Toluene-d8			105	75.0-131	
(S) 4-Bromofluorobenzene			106	67.0-138	
(S) 1,2-Dichloroethane-d4			114	70.0-130	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

L1286030-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20

Method Blank (MB)

(MB) R3597199-1 11/24/20 23:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	2.19	J	0.274	4.00
(S) o-Terphenyl	87.5			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3597199-2 11/24/20 23:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	46.3	92.6	50.0-150	
(S) o-Terphenyl			100	18.0-148	

L1286030-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1286030-10 11/25/20 01:34 • (MS) R3597199-3 11/25/20 01:46 • (MSD) R3597199-4 11/25/20 01:59

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	50.8	U	47.7	53.1	94.0	105	1	50.0-150			10.7	20
(S) o-Terphenyl					94.3	103		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Semi-Volatile Organic Compounds (GC) by Method 8015 [L1286030-21,22,23,24,25,26,27,28](#)

Method Blank (MB)

(MB) R3597678-1 11/25/20 22:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	69.2			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3597678-2 11/25/20 22:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	33.5	67.0	50.0-150	
(S) o-Terphenyl			73.9	18.0-148	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7G

8Al

9Sc

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

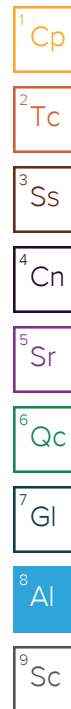
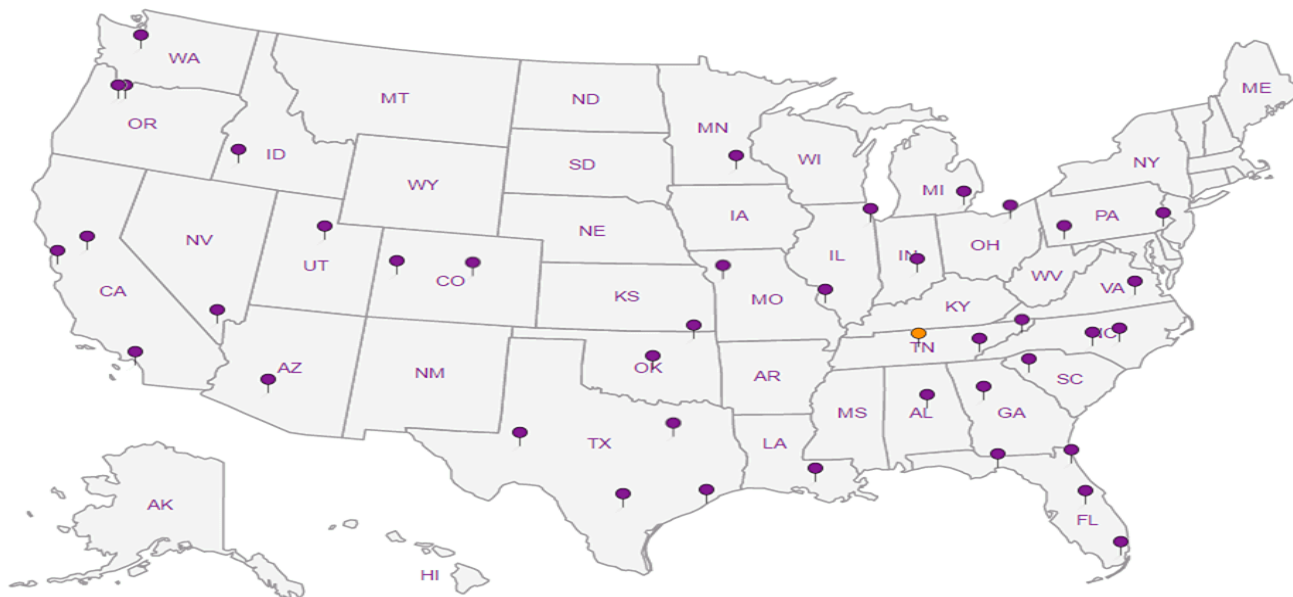
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



11286030



Tetra Tech, Inc.

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Client Name:	Conoco Phillips	Site Manager:	Christian Llull
Project Name:	Leamex Battery #8 Trunk Line Release (1RP-780)	Contact Info:	Email: christian.llull@tetrattech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-02334, Task No. 05
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	Joe Tyler
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B / 6240B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 6240B	GC/MS Semi. Vol. 8270C	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TD	General Water Chemistry	Anion/Cation Balance	TPH 8015R	HOLD	
		YEAR: 2020		WATER	SOIL	HCL	HNO ₃	ICE	NONE																								
		DATE	TIME																														
-01	BH-1 (0'-1')	11/11/20	1530	X			X			1	N	X	X														X						
-02	BH-1 (2'-3')	11/11/20	1540	X			X			1	N	X	X														X						
-03	BH-1 (4'-5')	11/11/20	1550	X			X			1	N	X	X														X						
-04	BH-1 (6'-7')	11/11/20	1600	X			X			1	N	X	X														X						
-05	BH-1 (9'-10')	11/11/20	1610	X			X			1	N	X	X														X						
-06	BH-1 (14'-15')	11/11/20	1620	X			X			1	N	X	X														X						
-07	BH-1 (19'-20')	11/11/20	1630	X			X			1	N	X	X														X						
-08	BH-2 (0'-1')	11/11/20	1640	X			X			1	N	X	X														X						
-09	BH-2 (2'-3')	11/11/20	1650	X			X			1	N	X	X														X						
-10	BH-2 (4'-5')	11/11/20	1700	X			X			1	N	X	X														X						

Relinquished by: <i>[Signature]</i>	Date: 11-13-20	Time: 14:00	Received by: <i>[Signature]</i>	Date: 11-13-20	Time: 14:00
Relinquished by: <i>[Signature]</i>	Date: 11-13-20	Time: 17:00	Received by: <i>[Signature]</i>	Date: 11-13-20	Time: 17:00
Relinquished by:	Date:	Time:	Received by: B. Barnes	Date: 11-14-20	Time: 1000

LAB USE ONLY	REMARKS:
	<input checked="" type="checkbox"/> Standard
	<input type="checkbox"/> RUSH: Same Day 24 hr. 48 hr. 72 hr.
	<input type="checkbox"/> Rush Charges Authorized
	<input type="checkbox"/> Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

A248

ORIGINAL COPY

2+0=2 *[Signature]*

11286030



Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name:	Conoco Phillips	Site Manager:	Christian Llull
Project Name:	Leamex Battery #8 Trunk Line Release (1RP-780)	Contact Info:	Email: christian.llull@tetrattech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-02334, Task No. 05
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	Joe Tyler
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD	
		YEAR: 2020		WATER	SOIL	HCL	HNO ₃	ICE	NONE																								
		DATE	TIME																														
-11	BH-2 (6'-7')	11/11/20	1710		X				X		1	N	X	X													X						
-12	BH-2 (9'-10')	11/11/20	1720		X				X		1	N	X	X													X						
-13	BH-2 (14'-15')	11/11/20	1730		X				X		1	N	X	X													X						
-14	BH-2 (19'-20')	11/11/20	1740		X				X		1	N	X	X													X						
-15	BH-3 (0'-1')	11/11/20	1750		X				X		1	N	X	X													X						
-16	BH-3 (2'-3')	11/11/20	1800		X				X		1	N	X	X													X						
-17	BH-3 (4'-5')	11/11/20	1810		X				X		1	N	X	X													X						
-18	BH-3 (6'-7')	11/11/20	1820		X				X		1	N	X	X													X						
-19	BH-3 (9'-10')	11/11/20	1830		X				X		1	N	X	X													X						
-20	BH-3 (14'-15')	11/11/20	1840		X				X		1	N	X	X													X						
Relinquished by: _____																																	

Relinquished by: <i>[Signature]</i>	Date: 11-13-20	Time: 14:00	Received by: <i>[Signature]</i>	Date: 11-13-20	Time: 14:00
Relinquished by: <i>[Signature]</i>	Date: 11-13-20	Time: 17:00	Received by: <i>[Signature]</i>	Date: 11-13-20	Time: 17:00
Relinquished by: <i>[Signature]</i>	Date: 11-14-20	Time: 10:00	Received by: <i>[Signature]</i>	Date: 11-14-20	Time: 10:00

ORIGINAL COPY

LAB USE ONLY Sample Temperature	REMARKS:
	<input checked="" type="checkbox"/> Standard
	<input type="checkbox"/> RUSH: Same Day 24 hr. 48 hr. 72 hr.
	<input type="checkbox"/> Rush Charges Authorized
	<input type="checkbox"/> Special Report Limits or TRRP Report
(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____	

2+0=2
AZ



Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: Conoco Phillips

Site Manager: Christian Llull

Project Name: Leamex Battery #8 Trunk Line Release (1RP-780)

Contact Info: Email: christian.llull@tetrattech.com
Phone: (512) 338-1667

Project Location: (county, state)	Lea County, New Mexico
--------------------------------------	------------------------

Project #: 212C-MD-02334, Task No. 05

Invoice to: Accounts Payable
901 West Wall Street, Suite 100 Midland, Texas 79701

Receiving Laboratory: Pace Analytical

Sampler Signature: Joe Tyler

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

[illegible]

Relinquished by: Locty Date: 11-13-20 Time: 14:00

Received by: [Signature] Date: 11-13-21 Time: 14:00

Relinquished by:  Date: 11-13-20 Time: 17:00

Received by: SWA Date: 11-13-20 Time: 17:00

Relinquished by: _____ Date: _____ Time: _____

Received by: B. Barnes Date: 11-14-20 Time: 1200

LAB USE
ONLY

Sample Temperature

REMARKS:

☒ Standard☐ RUSH: Same Day 24 hr. 48 hr. 72 hr.☐ Rush Charges Authorized☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

$$7 \pm 0 = 2 \text{ way}$$

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: <u>COPTETRA</u>	<u>U286030</u>		
Cooler Received/Opened On: <u>11 / 14 / 20</u>	Temperature: <u>.2</u>		
Received By: <u>Billy Barras</u>			
Signature: <u>B. Barras</u>			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	<u>/</u>		
COC Signed / Accurate?		<u>/</u>	
Bottles arrive intact?		<u>/</u>	
Correct bottles used?		<u>/</u>	
Sufficient volume sent?		<u>/</u>	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			



ANALYTICAL REPORT

December 16, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group: L1293360
Samples Received: 12/05/2020
Project Number: 212C-MD-02334 TASK05
Description: Leamex Battery #8 Trunk Line Release (IRP-780)

Report To: Christian Llull
901 West Wall
Suite 100
Midland, TX 79701

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Cp: Cover Page	1	<div><div>1</div>Cp</div>
Tc: Table of Contents	2	
Ss: Sample Summary	3	<div><div>2</div>Tc</div>
Cn: Case Narrative	4	
Sr: Sample Results	5	<div><div>3</div>Ss</div>
AH-1 (BH-5) (0'-1') L1293360-01	5	
AH-2 (BH-6) (0'-1') L1293360-02	6	<div><div>4</div>Cn</div>
AH-3 (BH-7) (0'-1') L1293360-03	7	<div><div>5</div>Sr</div>
AH-4 (BH-8) (0'-1') L1293360-04	8	
AH-5 (BH-9) (0'-1') L1293360-05	9	<div><div>6</div>Qc</div>
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Total Solids by Method 2540 G-2011	10	<div><div>7</div>Gl</div>
Wet Chemistry by Method 300.0	11	
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AH-1 (BH-5) (O'-1') L1293360-01 Solid

Collected by
Joe Tyler

Collected date/time
12/01/20 12:00

Received date/time
12/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1591959	1	12/16/20 04:01	12/16/20 04:09	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1591069	1	12/15/20 13:32	12/16/20 03:09	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1591774	1	12/08/20 17:35	12/14/20 20:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1590056	1	12/08/20 17:35	12/10/20 20:52	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1591822	1	12/14/20 23:17	12/15/20 12:13	TJD	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn

AH-2 (BH-6) (O'-1') L1293360-02 Solid

Collected by
Joe Tyler

Collected date/time
12/01/20 12:30

Received date/time
12/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1591959	1	12/16/20 04:01	12/16/20 04:09	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1591069	1	12/15/20 13:32	12/16/20 03:19	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1591774	1	12/08/20 17:35	12/14/20 20:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1590056	1	12/08/20 17:35	12/10/20 21:11	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1591822	1	12/14/20 23:17	12/15/20 12:26	TJD	Mt. Juliet, TN

⁵ Sr⁶ Qc⁷ Gl⁸ Al

AH-3 (BH-7) (O'-1') L1293360-03 Solid

Collected by
Joe Tyler

Collected date/time
12/01/20 13:00

Received date/time
12/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1591959	1	12/16/20 04:01	12/16/20 04:09	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1591069	1	12/15/20 13:32	12/16/20 03:28	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1591774	1	12/08/20 17:35	12/14/20 21:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1590056	1	12/08/20 17:35	12/10/20 21:30	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1591822	1	12/14/20 23:17	12/15/20 11:47	TJD	Mt. Juliet, TN

⁹ Sc

AH-4 (BH-8) (O'-1') L1293360-04 Solid

Collected by
Joe Tyler

Collected date/time
12/01/20 13:30

Received date/time
12/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1591959	1	12/16/20 04:01	12/16/20 04:09	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1591069	1	12/15/20 13:32	12/16/20 03:38	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1591774	1	12/08/20 17:35	12/14/20 21:33	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1590056	1	12/08/20 17:35	12/10/20 21:48	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1591822	1	12/14/20 23:17	12/15/20 12:00	TJD	Mt. Juliet, TN

AH-5 (BH-9) (O'-1') L1293360-05 Solid

Collected by
Joe Tyler

Collected date/time
12/01/20 14:00

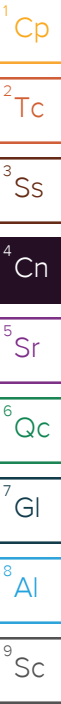
Received date/time
12/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1591959	1	12/16/20 04:01	12/16/20 04:09	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1591069	1	12/15/20 13:32	12/16/20 03:47	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1591774	1.01	12/08/20 17:35	12/14/20 21:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1590056	1	12/08/20 17:35	12/10/20 22:07	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1591822	1	12/14/20 23:17	12/15/20 11:07	TJD	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager



Collected date/time: 12/01/20 12:00

L1293360

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.8		1	12/16/2020 04:09	WG1591959

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.51	20.7	1	12/16/2020 03:09	WG1591069

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0224	0.103	1	12/14/2020 20:31	WG1591774
(S) a,a,a-Trifluorotoluene(FID)	108			77.0-120		12/14/2020 20:31	WG1591774

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000498	0.00107	1	12/10/2020 20:52	WG1590056
Toluene	U		0.00139	0.00533	1	12/10/2020 20:52	WG1590056
Ethylbenzene	U		0.000786	0.00267	1	12/10/2020 20:52	WG1590056
Total Xylenes	U		0.000939	0.00693	1	12/10/2020 20:52	WG1590056
(S) Toluene-d8	100			75.0-131		12/10/2020 20:52	WG1590056
(S) 4-Bromofluorobenzene	103			67.0-138		12/10/2020 20:52	WG1590056
(S) 1,2-Dichloroethane-d4	98.6			70.0-130		12/10/2020 20:52	WG1590056

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	19.5		1.66	4.13	1	12/15/2020 12:13	WG1591822
C28-C40 Oil Range	44.6		0.283	4.13	1	12/15/2020 12:13	WG1591822
(S) o-Terphenyl	79.4			18.0-148		12/15/2020 12:13	WG1591822

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.4		1	12/16/2020 04:09	WG1591959

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.45	20.5	1	12/16/2020 03:19	WG1591069

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	12/14/2020 20:52	WG1591774
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		12/14/2020 20:52	WG1591774

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000492	0.00105	1	12/10/2020 21:11	WG1590056
Toluene	U		0.00137	0.00527	1	12/10/2020 21:11	WG1590056
Ethylbenzene	U		0.000777	0.00263	1	12/10/2020 21:11	WG1590056
Total Xylenes	U		0.000927	0.00685	1	12/10/2020 21:11	WG1590056
(S) Toluene-d8	98.3			75.0-131		12/10/2020 21:11	WG1590056
(S) 4-Bromofluorobenzene	118			67.0-138		12/10/2020 21:11	WG1590056
(S) 1,2-Dichloroethane-d4	107			70.0-130		12/10/2020 21:11	WG1590056

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	7.54		1.65	4.11	1	12/15/2020 12:26	WG1591822
C28-C40 Oil Range	35.0		0.281	4.11	1	12/15/2020 12:26	WG1591822
(S) o-Terphenyl	93.0			18.0-148		12/15/2020 12:26	WG1591822

Collected date/time: 12/01/20 13:00

L1293360

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.0		1	12/16/2020 04:09	WG1591959

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.39	20.4	1	12/16/2020 03:28	WG1591069

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0221	0.102	1	12/14/2020 21:13	WG1591774
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		12/14/2020 21:13	WG1591774

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000486	0.00104	1	12/10/2020 21:30	WG1590056
Toluene	U		0.00135	0.00520	1	12/10/2020 21:30	WG1590056
Ethylbenzene	U		0.000767	0.00260	1	12/10/2020 21:30	WG1590056
Total Xylenes	U		0.000916	0.00677	1	12/10/2020 21:30	WG1590056
(S) Toluene-d8	105			75.0-131		12/10/2020 21:30	WG1590056
(S) 4-Bromofluorobenzene	70.2			67.0-138		12/10/2020 21:30	WG1590056
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		12/10/2020 21:30	WG1590056

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	3.04	J	1.64	4.08	1	12/15/2020 11:47	WG1591822
C28-C40 Oil Range	22.9		0.280	4.08	1	12/15/2020 11:47	WG1591822
(S) o-Terphenyl	94.6			18.0-148		12/15/2020 11:47	WG1591822

Collected date/time: 12/01/20 13:30

L1293360

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.9		1	12/16/2020 04:09	WG1591959

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.40	20.4	1	12/16/2020 03:38	WG1591069

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0989	J	0.0222	0.102	1	12/14/2020 21:33	WG1591774
(S) a,a,a-Trifluorotoluene(FID)	107			77.0-120		12/14/2020 21:33	WG1591774

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000487	0.00104	1	12/10/2020 21:48	WG1590056
Toluene	U		0.00136	0.00522	1	12/10/2020 21:48	WG1590056
Ethylbenzene	U		0.000769	0.00261	1	12/10/2020 21:48	WG1590056
Total Xylenes	U		0.000919	0.00678	1	12/10/2020 21:48	WG1590056
(S) Toluene-d8	106			75.0-131		12/10/2020 21:48	WG1590056
(S) 4-Bromofluorobenzene	102			67.0-138		12/10/2020 21:48	WG1590056
(S) 1,2-Dichloroethane-d4	93.5			70.0-130		12/10/2020 21:48	WG1590056

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.59		1.65	4.09	1	12/15/2020 12:00	WG1591822
C28-C40 Oil Range	25.1		0.280	4.09	1	12/15/2020 12:00	WG1591822
(S) o-Terphenyl	92.5			18.0-148		12/15/2020 12:00	WG1591822

Collected date/time: 12/01/20 14:00

L1293360

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.5		1	12/16/2020 04:09	WG1591959

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.43	20.5	1	12/16/2020 03:47	WG1591069

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1.01	12/14/2020 21:54	WG1591774
(S) a,a,a-Trifluorotoluene(FID)	109			77.0-120		12/14/2020 21:54	WG1591774

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000491	0.00105	1	12/10/2020 22:07	WG1590056
Toluene	U		0.00137	0.00525	1	12/10/2020 22:07	WG1590056
Ethylbenzene	U		0.000774	0.00263	1	12/10/2020 22:07	WG1590056
Total Xylenes	U		0.000924	0.00683	1	12/10/2020 22:07	WG1590056
(S) Toluene-d8	85.2			75.0-131		12/10/2020 22:07	WG1590056
(S) 4-Bromofluorobenzene	102			67.0-138		12/10/2020 22:07	WG1590056
(S) 1,2-Dichloroethane-d4	101			70.0-130		12/10/2020 22:07	WG1590056

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	4.93		1.65	4.10	1	12/15/2020 11:07	WG1591822
C28-C40 Oil Range	25.2		0.281	4.10	1	12/15/2020 11:07	WG1591822
(S) o-Terphenyl	85.6			18.0-148		12/15/2020 11:07	WG1591822

Total Solids by Method 2540 G-2011 [L1293360-01,02,03,04,05](#)

Method Blank (MB)

(MB) R3604173-1 12/16/20 04:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00100			

L1293357-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1293357-16 12/16/20 04:09 • (DUP) R3604173-3 12/16/20 04:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	90.3	90.2	1	0.0648		10

Laboratory Control Sample (LCS)

(LCS) R3604173-2 12/16/20 04:09

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

L1293360-01,02,03,04,05

Method Blank (MB)

(MB) R3603970-1 12/15/20 23:47

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0

L1293317-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1293317-01 12/16/20 00:35 • (DUP) R3603970-5 12/16/20 00:44

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	U	U	1	0.000		20

L1293361-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1293361-02 12/16/20 04:25 • (DUP) R3603970-6 12/16/20 04:35

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3603970-2 12/15/20 23:57

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	199	99.5	90.0-110	

L1293307-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1293307-01 12/16/20 00:06 • (MS) R3603970-3 12/16/20 00:16 • (MSD) R3603970-4 12/16/20 00:25

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	500	U	463	470	92.7	93.9	1	80.0-120			1.35	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

L1293360-01,02,03,04,05

Method Blank (MB)

(MB) R3603512-1 12/14/20 19:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	110			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3603512-2 12/14/20 19:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.62	120	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			100	77.0-120	

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

L1293360-01,02,03,04,05

Method Blank (MB)

(MB) R3602888-2 12/10/20 16:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	116			75.0-131
(S) 4-Bromofluorobenzene	120			67.0-138
(S) 1,2-Dichloroethane-d4	107			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3602888-1 12/10/20 15:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.109	87.2	70.0-123	
Ethylbenzene	0.125	0.109	87.2	74.0-126	
Toluene	0.125	0.111	88.8	75.0-121	
Xylenes, Total	0.375	0.346	92.3	72.0-127	
(S) Toluene-d8			99.5	75.0-131	
(S) 4-Bromofluorobenzene			109	67.0-138	
(S) 1,2-Dichloroethane-d4			102	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

L1293360-01,02,03,04,05

Method Blank (MB)

(MB) R3603820-1 12/15/20 09:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	86.3			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3603820-2 12/15/20 09:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	43.4	86.8	50.0-150	
(S) o-Terphenyl			89.0	18.0-148	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

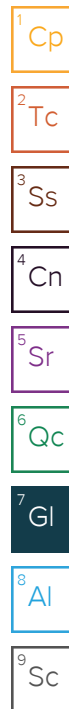
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J The identification of the analyte is acceptable; the reported value is an estimate.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

APPENDIX E

NMSLO Seed Mixture Details



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Lea County, New Mexico**

1RP-780



December 30, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


Custom Soil Resource Report Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)


Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 17, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	2.9	76.8%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	0.9	23.2%
Totals for Area of Interest		3.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

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onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

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Lea County, New Mexico

KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw43*Elevation:* 2,500 to 4,800 feet*Mean annual precipitation:* 14 to 16 inches*Mean annual air temperature:* 57 to 63 degrees F*Frost-free period:* 180 to 220 days*Farmland classification:* Not prime farmland

Map Unit Composition

Kimbrough, dry, and similar soils: 80 percent*Minor components:* 20 percent*Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Kimbrough, Dry

Setting

Landform: Plains, playa rims*Down-slope shape:* Linear, convex*Across-slope shape:* Linear, concave*Parent material:* Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam*Bw - 3 to 10 inches:* loam*Bkkm1 - 10 to 16 inches:* cemented material*Bkkm2 - 16 to 80 inches:* cemented material

Properties and qualities

Slope: 0 to 3 percent*Depth to restrictive feature:* 4 to 18 inches to petrocalcic*Drainage class:* Well drained*Runoff class:* High*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.01 in/hr)*Depth to water table:* More than 80 inches*Frequency of flooding:* None*Frequency of ponding:* None*Calcium carbonate, maximum content:* 95 percent*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)*Sodium adsorption ratio, maximum:* 1.0*Available water capacity:* Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified*Land capability classification (nonirrigated):* 7s*Hydrologic Soil Group:* D*Ecological site:* R077DY049TX - Very Shallow 12-17" PZ*Hydric soil rating:* No

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Minor Components**Eunice***Percent of map unit:* 10 percent*Landform:* Plains*Down-slope shape:* Linear*Across-slope shape:* Convex*Ecological site:* R077DY049TX - Very Shallow 12-17" PZ*Hydric soil rating:* No**Spraberry***Percent of map unit:* 6 percent*Landform:* Plains, playa rims*Down-slope shape:* Linear, convex*Across-slope shape:* Linear*Ecological site:* R077DY049TX - Very Shallow 12-17" PZ*Hydric soil rating:* No**Kenhill***Percent of map unit:* 4 percent*Landform:* Plains*Down-slope shape:* Linear*Across-slope shape:* Linear*Ecological site:* R077DY038TX - Clay Loam 12-17" PZ*Hydric soil rating:* No**KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes****Map Unit Setting***National map unit symbol:* 2tw46*Elevation:* 2,500 to 4,800 feet*Mean annual precipitation:* 14 to 16 inches*Mean annual air temperature:* 57 to 63 degrees F*Frost-free period:* 180 to 220 days*Farmland classification:* Not prime farmland**Map Unit Composition***Kimbrough and similar soils:* 45 percent*Lea and similar soils:* 25 percent*Minor components:* 30 percent*Estimates are based on observations, descriptions, and transects of the mapunit.***Description of Kimbrough****Setting***Landform:* Plains, playa rims*Down-slope shape:* Linear, convex*Across-slope shape:* Linear, concave*Parent material:* Loamy eolian deposits derived from sedimentary rock

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Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Description of Lea**Setting**

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated caliche of pliocene age

Typical profile

A - 0 to 10 inches: loam
Bk - 10 to 18 inches: loam
Bkk - 18 to 26 inches: gravelly fine sandy loam
Bkkm - 26 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 22 to 30 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 90 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0

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Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: R077DY047TX - Sandy Loam 12-17" PZ

Hydric soil rating: No

Minor Components**Douro**

Percent of map unit: 12 percent

Landform: Plains

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R077DY047TX - Sandy Loam 12-17" PZ

Other vegetative classification: Unnamed (G077DH000TX)

Hydric soil rating: No

Kenhill

Percent of map unit: 12 percent

Landform: Plains

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R077DY038TX - Clay Loam 12-17" PZ

Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent

Landform: Plains, playa rims

Down-slope shape: Linear, convex

Across-slope shape: Linear

Ecological site: R077DY049TX - Very Shallow 12-17" PZ

Other vegetative classification: Unnamed (G077DH000TX)

Hydric soil rating: No

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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

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NMSLO Seed Mix**Loamy (L)****LOAMY (L) SITES SEED MIXTURE:**

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Black grama	VNS, Southern	1.0	D
Blue grama	Lovington	1.0	D
Sideoats grama	Vaughn, El Reno	4.0	F
Sand dropseed	VNS, Southern	2.0	S
Alkali sacaton	VNS, Southern	1.0	
Little bluestem	Cimarron, Pastura	1.5	F
Forbs:			
Firewheel (<i>Gaillardia</i>)	VNS, Southern	1.0	D
Shrubs:			
Fourwing saltbush	Marana, Santa Rita	1.0	D
Common winterfat	VNS, Southern	0.5	F
Total PLS/acre		18.0	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box

VNS = Variety Not Stated, PLS = Pure Live Seed

- Seed mixes should be provided in bags separating seed types into the three categories: small (S), standard (D) and fluffy (F).
- VNS, Southern – Seed should be from a southern latitude collection of this species.
- Double seed application rate for broadcast or hydroseeding.
- If one species is not available, contact the SLO for an approved substitute; alternatively the SLO may require other species proportionately increased.
- Additional information on these seed species can be found on the USDA Plants Database website at <http://plants.usda.gov>.



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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 208247

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 208247
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
jharimon	The Remediation Plan is Conditionally Approved. The variance request for the alternative confirmation sampling plan including Fifty-two (52) confirmation floor samples and forty-nine (49) confirmation sidewall samples throughout the excavation area is approved.	4/24/2023